

# STIC Search Report Biotech-Chem Library

#### STIC Database Tracking Number: 189088

**TO: Christine Saoud** 

Location: rem/4E81/4C70

**Art Unit: 1647** 

Friday, May 12, 2006

Case Serial Number: 10/714067

From: Kristine Hensle

**Location: Biotech-Chem Library** 

REM-1B69

Phone: (571) 272-4161

Kristine. Hensle@uspto.gov

#### Search Notes

Examiner Saoud,

See attached results.

If you have any questions about this search feel free to contact me at any time.

Thank you for using STIC search services!

Kristine Hensle Librarian STIC Biotech/Chem Library (571)272-4161

763 8551 904



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#### STIC-Biotech/ChemLib

From:

Saoud, Christine

Sent:

Monday, May 08, 2006 6:47 AM

To: Subject:

co STIC-Biotech/ChemLib sequence search request - 10/714067

Please search SEQ ID NO:24 in the patent and commercial databases. No interference/pending search at this time.

This should be a protein search.

Thanks,

Christine Saoud AU 1647 **REM 04 E81** 571-272-0891

Searcher:\_ Searcher Phone: Date Searcher Picked up: Date completed: Searcher Prep Time:\_ Online Time:\_

Type of Search AA#:\_ NA#\_ Oligomer: S/L:\_ Encode/Transl:\_ \_Text: Structure #:\_\_\_ \_Litigation:\_ Inventor:\_\_\_

Vendors and cost where applicable STN:\_\_\_\_ DIALOG: QUESTEL/ORBIT: LEXIS/NEXIS: SEQUENCE SYSTEM:\_ WWW/Internet:\_ Other (Specify):

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# SUMMARIES

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Abg94932	Abg31862	Abg31857	Abg31866	Abg31863	Abg31865	Aao17486	Aao17485	Aay78425	Aay04396	Aay04397	Aay15809	Aap81226	Adf16216	Adf16507	Aap61033	Aar05313	Adi47388	Adi47367	Adi47365	TCC/ LTDW
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### ALIGNMENTS

RESULT 1
AAW92265
ID AAW9
XX AAW9
AC AAW9
XX AAW9
AC AAW9
XX Huma
XX Huma
XX Huma
XX Huma
XX Unc
XX Grow
XX Gr Human; anti-angiogenic; prolactin; placental lactogen; hPL; angiogenesis; growth hormone; hGH; hGH-V; capillary endothelial cell proliferation; placental vascularisation; pregnancy; treatment; angiogenic disease; tumour; inhibitor; malignant; angiofibroma; arteriovenous malformation; arthritis; atherosclerotic plaques; corneal graft neovascularisation; wound healing; proliferative retinopathy; macular degeneration; trachoma; granulation; glaucoma; ocular; uveitis; fracture; Osler-Weber syndrome; psoriasis; fibroplasia; scleroderma; Kaposi's sarcoma; vascular adhesion; ulcer; leukaemia; reproductive disorder; contraceptive agent; gene therapy; pre-eclampsia; intrauterine growth retardation; Human anti-angiogenic peptide 16K hGH Met-1Pro133. 08-JUN-1999 AAW92265; AAW92265 standard; protein; 134 placental dysfunction. (first entry)

Homo sapiens.

WO9851323-A1

19-NOV-1998.

12-MAY-1998; 98WO-US009691.

13-MAY-1997; 97US-0046394P

(REGC ) UNIV CALIFORNIA.

Weiner RI, Martial JA, Struman , Taylor

WPI; 1999-045192/04. N-PSDB; AAX01707.

New anti-angiogenic peptides - comprise N-terminal fragments of human placental lactogen, human growth hormone, growth hormone variant or human prolactin.

Claim 4; Page 49-50; 87pp; English.

This invention describes novel human anti-angiogenic peptides derived from 10 to 150 consecutive amino acids selected from the N-terminal end

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RESULT 2
AAAP91041
ID AAAP9
XX AAAP9
XX AAP9
XX Huma
XX Huma
XX Huma
XX Huma
XX Homo
XX Homo
XX Homo
XX 17-F
XX 17-F
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                                                                                                                                                                                                                                                                                                                      Human growth hormone; fusion protein; thrombin; geriatric dementia; nervous disorders; human nerve factor.
                                                                            19-FEB-1988;
                                                                                                                           17-FEB-1989;
                                                                                                                                                                           23-AUG-1989.
                                                                                                                                                                                                                            EP329175-A.
                                                                                                                                                                                                                                                                                                                                                                                                Human growth hormone segment.
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                              (TOYJ ) TOSOH CORP
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(first entry)
                                                                            88JP-00035042
                                                                                                                           89EP-00102795
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                                                                                                                                                Multimer assembly of DNA sequences comprising an amplification cassette having monomer sequences and 5' restriction pair member (RPM) at its 5'
                                                                                                                                                                                                                                      WPI; 2004-122926/12.
N-PSDB; ADI47329.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUL-2003; 2003WO-US022216.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Synthetic.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Plasmid pOAllAl amino acid sequence SEQ ID NO:18
                                                       Example 2; SEQ ID NO 18; 163pp; English
                                                                                                                 having monomer sequences and terminus and 3' RPM at its 3'
                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUL-2002; 2002US-0396466P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      22-JAN-2004.
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Pred. No. 5.6e-58;
0; Mismatches 1
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The present invention

describes a multimer

assembly of DNA sequences

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ARESULT 4
AAP90129
ID AAP9
XX AAP9
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DT 25-M
DT 01-N
XX Huma
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XX Huma
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PA WPI:
DR WPI:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      CC monomer sequence whose polymerisation is desired, and a 5' restriction are compared following: (a) 3'-terminal cassette comprising 3' specific come or more of following: (a) 3'-terminal cassette comprising 3' specific sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' RPM site of AC; or (b) 5'-terminal cassette compressing a diagnostic protein and therapeutic cassette cassette
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Best Local S
Matches 133
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25-MAR-2003
06-FEB-1996
  N-PSDB; AAN90269
                       WPI; 1989-209284/29
                                                                                                                                                                                                      07-JUN-1989.
                                                                                                                                                                                                                                                                                            Homo sapiens;
                                                                                                                                                                                                                                                                                                                                       Human growth
                                                                                                                                                                                                                                                                                                                                                                                    Human growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AAP90129;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               AAP90129 standard; protein;
                                                                                                                                                        02-DEC-1987;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Sequence 188
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                                                                  (WAKT ) WAKUNAGA SEIYAKU KK
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                                                                                                                                                                                                                                                                                                                                         hormone; fusion protein; recombinant vector
                                                                                                                                                                                                                                                                                                                                                                                       hormone.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (revised)
                                                                                                                                                                                                                                                                                                                                                                                                                                  (revised)
(first entry)
                                                                                                                                                                                                                                                                                              (Human)
                                                                                                             87JP-00304937
                                                                                                                                                           87JP-00304937
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Pred. No. 8.1e-58;
0; Mismatches 1;
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New anti-angiogenic placental lactogen,

peptides - comprise N-terminal fragments of human human growth hormone, growth hormone variant or human

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ARBSULT 5
AAW92264
ID AAW9
XX AAW92264
AC AAW9
XX AAW9
DT 08-0
XX Huma
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   floer; recognition gene therapy; pre-contal dysfunction.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               The invention consists of a vector contg. a fusion protein which is formed by ligating, downstream of a promoter, hGH or a deriv. (pref. formed by subtstn. of Met-14 with Leu) and a foreign protein. Stability of the vector in the host is greatly increased so the protein yield is higher. (Updated on 25-MAR-2003 to correct PA field.) (Updated on 24-OCT-2003 to standardise OS field)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           arthritis; atherosclerotic plaques; corneal graft neovascularisation; wound healing; proliferative retinopathy; macular degeneration; trachoma; granulation; glaucoma; ocular; uveitis; fracture; Osler-Weber syndrome; psoriasis; fibroplasia; scleroderma; Kaposi's sarcoma; vascular adhesion;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human; anti-angiogenic; prolactin; placental lactogen; hPL; angiogenesis; growth hormone; hGH; hGH-V; capillary endothelial cell proliferation; placental vascularisation; pregnancy; treatment; angiogenic disease; tumour; inhibitor; malignant; angiofibroma; arteriovenous malformation;
                                                                                       N-PSDB; AAX01706
                                                                                                                                                                                                                                                                                     13-MAY-1997;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Human anti-angiogenic peptide hGH Met-1Phe191.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          08-JUN-1999
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                                                                                                                                                                                                                                                                                                                                              12-MAY-1998;
                                                                                                                                                                                                                                                                                                                                                                                                       19-NOV-1998
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                                                                                                                                                                                                                           (REGC ) UNIV CALIFORNIA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        leukaemia; reproductive disorder; contraceptive agent;
nerapy; pre-eclampsia; intrauterine growth retardation;
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                                                                                                                                                                        Martial
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                                                                                                                                                                        Struman
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Pred. No. 8.3e-58;
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Example 3; Page 49; 87pp; English

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RESULT 6
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Best Local Similarity
Matches 133; Conserv
                                                                                                                                                                                                                                                                                                                                                       multimer assembly; DNA sequence; amplification cassette;
monomer sequence; restriction pair member; diagnostic protein;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           of human placental lactogen (hPL), human growth hormone (hGH), growth hormone variant (hGH-V), or human prolactin. Such peptides (i) inhibit capillary endothelial cell proliferation and organisation (ii) inhibit angiogenesis in chick choricallantoic membrane and (iii) binds to at least one specific receptor which does not bind an intact full length hGH, hPL, prolactin or hGH-V. The invention also describes a method for
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       This invention describes novel human anti-angiogenic peptides derived from 10 to 150 consecutive amino acids selected from the N-terminal end of human placental lactogen (hFL), human growth hormone (hGH), growth hormone variant (hGH-V), or human prolactin. Such peptides (i) inhibit
                                                                                                                                                                                                                             Synthetic.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Plasmid pOA0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                22-APR-2004
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      ADI47320;
                                                      22-JAN-2004
                                                                                                                                            WO2004007687-A2
                                                                                                                                                                                                                                                                                                                   therapeutic
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ADI47320 standard; protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   dysfunction
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  pre-eclampsia,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121 GIQTLMGRLEDGSP 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   13
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     61 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               \vdash
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                1 MPPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKBQKYSFLQNPQTSLSFSESIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       GIQTLMGRLEDGSP 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP
                                                                                                                                                                                                                                                                                                                   protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      amino acid sequence SEQ ID NO:8.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (first entry)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       intrauterine growth retardation, and placental
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     99.3%; Score 675; DB 2; 99.3%; Pred. No. 8.3e-58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 1; Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Length 192;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 0,
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RESULT 7
ADI47390
ID ADI4
XX
AC ADI4
XX
AC ADI4
XX
AC Plas
XX
DT 22-A
XX
DE Plas
XX
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         S
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                CC comprising at least one amplification cassette (AC) having at least one amplification cassette (AC) having at least one componer sequence whose polymerisation is desired, and a 5' restriction common member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and cone or more of following: (a) 3'-terminal cassette comprising 3' specific sequence and 5' RPM site fused to a 3' RPM site fused to a 3' RPM site fused to a 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC cassette comprision and therapeutic component factor, a nactivator, a receptor CC factor, a DNA replication factor, a transcription factor, a translation component factor, in the factor in an activator, a chapseronin, or an cC colony-stimulating factor. In II-12, II-13, II-14, II-15, II-16, II-17, II-18, II-19, II-19, II-16, II-17, II-18, II-19, II-19, II-119, II-19, II-19,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Matches 133; Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
                                            Plasmid pOA51A amino acid sequence SEQ ID NO:78.
                                                                                                  22-APR-2004 (first entry)
                                                                                                                                                    ADI47390;
                                                                                                                                                                                                ADI47390 standard; protein; 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Sequence 192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Example 1; SEQ ID NO 8; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Multimer assembly of DNA sequences comprising an amplification cassette having monomer sequences and 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     N-PSDB; ADI47319.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              16-JUL-2002; 2002US-0396466P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               16-JUL-2003; 2003WO-US022216
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               2004-122926/12
                                                                                                                                                                                                                                                                                                                             121
                                                                                                                                                                                                                                                                                                                                                            121 GIQTLMGRLEDGSP 134
                                                                                                                                                                                                                                                                                                                                                                                                                             61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           61 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       1 MFPTIPLSRLEDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP
                                                                                                                                                                                                                                                                                                                             GIQTLMGRLEDGSP 134
                                                                                                                                                                                                                                                                                                                                                                                                                          TPSNREETQQKSNLELLRISLLLIQSWLEEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  99.3%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             0; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 675; DB 8;
Pred. No. 8.3e-58;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Length 192,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Indels
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             <u>,</u>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Gaps
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multimer assembly; DNA sequence; amplification cassette;

120

60 60

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RESULT 8
ADI47398
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                                                                                                                                                                                                                                                                                               8
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  The present invention describes a multimer assembly of DNA sequences (I) CC comprising at least one amplification cassette (AC) having at least one component sequence whose polymerisation is desired, and a 5' restriction cc monomer sequence whose polymerisation is desired, and a 5' restriction cc monomer sequence and 5' RPM at its 5' terminus and 3' RPM at its 3' terminus, and cc sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' cc restriction cc sequence and 5' RPM site fused to a 5' cc restriction factor; a protein is a cytckine, a growth factor, a hormone, a receptor cc protein is a cytckine, a growth factor, a hormone, a receptor cc ligand, an enzyme, an inhibitor, a transcription factor, a translation cc factor, a nezyme, an inhibitor, a transcription factor, a translation cc factor, a chaperonin, or an cc filt-9, IL-10, IL-11, IL-2, IL-3, IL-4, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-5, IL-6, IL-7, IL-8, IL-9, IL-10, IL-11, IL-12, IL-13, IL-14, IL-15, IL-16, erythropoietin, cc londy-stimulating factor, the protein growth factor, lymphotoxin, platelet-derived growth cattor, epidermal growth factor, lymphotoxin, platelet-derived growth factor, epidermal growth factor, transforming growth factor, beta, angiostatin, mallerian-inhibiting substance, B-cell growth cattor, macrophage migration inhibiting substance, B-cell growth cattor, macrophage migration inhibiting substance, B-cell growth cattor, interpretation inhibiting substance, B-cell growth cattor, macrophage migration inhibiting substance, B-cell growth cattor, became interpretation.
                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Sim:
Matches 133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Multimer assembly of DNA sequences comprising an amplification cassette having monomer sequences and 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus.
                                                                                                                                                                                                                                                                                                                                                                                                                                 Sequence 192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Example 12; SEQ ID NO 78; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            16-JUL-2002; 2002US-0396466P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      16-JUL-2003; 2003WO-US022216.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          monomer sequence; restriction pair member; diagnostic protein; therapeutic protein.
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                                                                                                                             121
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                                                                                                                                                                                                                                                                                                                                                                  Similarity
                                                                                  GIQTLMGRLEDGSP 134
                                                                                                                           GIQTLMGRLEDGSP 134
                                                                                                                                                                                            TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                                                                                                                                                                                               MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP 60
                                                                                                                                                                                                                                                                                                                                              Conservative
                                                                                                                                                                                                                                                                                                                                                           99.3%;
                                                                                                                                                                                                                                                                                                                                         Score 675; DB 8; Le
Pred. No. 8.3e-58;
0; Mismatches 1;
                                                                                                                                                                                                                                                                                                                                                                                    Length 192;
                                                                                                                                                                                                                                                                                                                                              Indels
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                                                                                                                                                                                                                                                        60
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61 TPSNREETQQKSNLELLRISLLLIQSWLEFVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120

MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP MEPTIPLSRLEDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP

S

Best Loc Matches

Conservative

0;

Query Match Best Local Similarity

99.3%;

Score 675; DB Pred. No. 8.3e 0; Mismatches

DB 8; .3e-58; 1;

Length 192; Indels

0;

Gaps

60

Sequence 192 AA;

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The present invention describes a multimer assembly of DNA sequences (I) CC comprising at least one amplification cassette (AC) having at least one monomer sequence whose polymerisation is desired, and a 5' restriction compair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus, and CC one or more of following: (a) 3'-terminal cassette comprising 3' specific sequence and 5' RPM site fused to a 3' RPM site of AC; or (b) 5'-terminal cassette comprising 5' specific sequence and 3' RPM site fused to a 5' CC RPM site of AC. (I) can be used for expressing a diagnostic protein or therapeutic protein. In (I), the diagnostic protein and therapeutic protein is a cytokine, a growth factor, a hormone, a receptor a receptor comprising 5' specific representation factor, a transcription factor, a translation compaint of the company at the composition of an antibody. The therapeutic protein is interferon (IFM) alpha, IFM-beta, CC IFM-gamma, interleukin (II)-1, II-2, II-3, II-4, II-5, II-6, II-7, II-8, II-9, II-10, II-11, II-12, II-13, II-4, II-15, II-6, II-7, II-8, CC II-9, II-10, II-12, II-13, II-4, II-15, II-16, II-7, II-8, CC colony-stimulating factor, granulocyte-macrophage colony-stimulating factor, colony-stimulating factor, granulocyte-colony-stimulating factor, granulocyte-colony-stimulating factor, colony-stimulating growth factor, transforming growth factor, epidermal growth factor, transforming growth factor, beta, CC factor, macrophage migration inhibiting substance, B-cell growth cator, macrophage migration inhibiting substance, B-cell growth consideration, or macrophage migration inhibiting substance, B-cell growth consideratin, or macrophage migration inhibiting substance, B-cell growth consideration inhibit
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Multimer assembly of DNA sequences comprising an amplification cassette having monomer sequences and 5' restriction pair member (RPM) at its 5' terminus and 3' RPM at its 3' terminus.
                                                   present invention.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           multimer assembly; DNA sequence; amplification cassette; monomer sequence; restriction pair member; diagnostic protein; therapeutic protein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Claim 115; SEQ ID NO 86; 163pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        WPI; 2004-122926/12
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 16-JUL-2002; 2002US-0396466P
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  16-JUL-2003; 2003WO-US022216
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TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120

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RESULT 9
ADV25451
ID ADV2
XX ADV2
XX ADV2
XX ADV2
XX Soma
XW Soma
XW Soma
XW endo
OS Syntt
XX W020
XX W020
XX W020
XX Homo
OS Syntt
XX W020
XX
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                                  Ś
                                                                                                                                                                                                                                                                                                                         The present sequence is that of a mutant human growth hormone (C (somatotropin) which includes an N-terminal Met residue. The invention (C relates to mutants abv2546-Abv25452 of human somatotropin that contain (C newly introduced N-linked or O-linked glycosylation site(s), such that these recombinantly produced polypeptides have glycosylation patterns (C distinctly different from that of the naturally-occurrish hormone. The CC distinctly different from the for the mutants, expression cassettes (C comprising the coding sequences for the mutants, expression cassettes (C comprising the coding sequences, cells expressing the mutants, and (C methods for producing the mutants are also provided, as well as (pharmaceutical compositions comprising the mutants cand methods for using the mutants. The mutant growth hormone is optionally conjugated to one or modifying group between the glycosylation giving tise to a (glycosyl linking group between the glycosylation site and the modifying growth hormone is polyethylene glycol. The mutant growth hormone is used in a claimed method for treating human growth
                                                                                                                                  Query Match
Best Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         09-MAY-2003; 2003US-0469114P.
13-AUG-2003; 2003US-0494751P.
14-AUG-2003; 2003US-0495076P.
08-JAN-2004; 2004US-0535290P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      New nucleic acid comprising a sequence encoding a mutant human growth hormone comprising a newly introduced N-linked or O-linked glycosylation site, useful in preparing a composition for treating human growth hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Somatotropin; protein engineering; glycosylation; hormone; dwarfism; endocrine-gen.; endocrine disease; metabolic disorder; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADV25451;
                                                                                                                                                                                                                                   Sequence 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Claim 13; SEQ ID NO 8; 136pp; English
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            WPI; 2004-834156/82.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Clausen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       07-MAY-2004; 2004WO-US014254.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            endocrine-gen.;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          WO2004103275-A2
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               (DEFR/)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           (NEOS-)
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DEFREES S.
                                                                                                                                                                                                                                                                                                     deficiency
                                                                                                                                  Similarity
MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEBAYIPKEQKYSFLQNPQTSLSFSESIP
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                                                                                                       Conservative
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                                                                                                                                  99.3%;
                                                                                                                                                                                                                                                                                                     patient.
                                                                                      0,
                                                                                                Score 675; DB 8; Length 192; Pred. No. 8.3e-58; O; Mismatches 1; Indels
                                                                                                   0
                                                                                                   Gaps
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RESULT 10
ADV25452
ID 25452
XX ADV25
XX ADV25
XX ADV25
XX ADV25
XX ADV25
XX ADV25
XX Bomat
XX Somat
XX Somat
XX Somat
XX W endoc
XX Homo
OS Synth
XX W0200
XX 09-M2
XX 09-M2
XX 09-M2
PR 13-At
PR 113-At
PR 113-At
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                                                                    site, useful in preparing a composition for treating deficiency.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               New nucleic acid comprising a sequence encoding a mutant human growth hormone comprising a newly introduced N-linked or O-linked glycosylation site, useful in preparing a composition for treating human growth hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Clausen
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   09-MAY-2003; 2003US-0469114P.
13-AUG-2003; 2003US-0494751P.
14-AUG-2003; 2003US-0459076P.
08-JAN-2004; 2004US-0535290P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               07-MAY-2004; 2004WO-US014254.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Somatotropin; protein engineering; glycosylation; hormone; dwarfism; endocrine-gen.; endocrine disease; metabolic disorder; mutein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Claim 13; SEQ ID NO 9; 136pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         WPI; 2004-834156/82
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 02-DEC-2004.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Human growth hormone O-glycosylation mutant 7.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   (NEOS-) NEOSE TECHNOLOGIES INC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         121
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                                                     deficiency
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            standard;
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                                                  in a patient.
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Query Match

Sequence

192 AA;

Best Local Similarity

99.3**%**;

Score Pred.

675; DB 8; No. 8.3e-58;

Length 192

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ARESULT 11
AD091669
ID AD091669
ID AD091669
ID AC AD091
AC ACOM
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                                                                                                                                                                                                   Matches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                The invention relates to a recombinant plasmid DNA pES1-6 encoding a polypeptide with somatotropin amino acid sequence with molecular mass 3.66 MDa (5949 pair bases). The specification also discloses an Escherichia coli BL21(DE3)/pES1-6 strain comprising a recombinant plasmid DNA pES1-6 as a producer of recombinant somatotropin. The invention provides a method for preparing recombinant somatotropin with high yield by the simplified technology. The plasmid can be used for preparing recombinant human growth hormone. This sequence corresponds to the
                                                                                                                                                                                                                                                                                                        Sequence 192
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Recombinant plasmid DNA pES1-6 encoding somatotropin polypeptide, useful in the improved production of recombinant somatotropin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Disclosure; Fig 1; 10pp; Russian
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               WPI; 2004-622511/60
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Gabibov
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       (ASBI=)
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    24-FEB-2005 ·
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                                                                                                                                                                                                                                                                                                                                                               somatotropin protein.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      121 GIQTLMGRLEDGSP 134
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61
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    AS RUSSIA BIO-ORGANIC CHEM INST. MASTERXLON STOCK CO.
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                                                                                                                   MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP
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                                                                                   MEPTIPLSRLEDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Ponomarenko NA,
Bairamashvili DI,
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                                                                                                                                                                                              0;
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                                                                                                                                                                                           Score 675; DB 8;
Pred. No. 8.3e-58;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Vorobev II, I
, Miroshnikov
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                                                                                                                                                                                                                                               Length 192;
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                            standard; protein;
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The invention related to a method for producing recombinant human growth hormone (GH). The method comprises: (1) obtaining human GH gene using Phil-D2 plasmid as a shuttle plasmid to transport GH cDNA into yeast cells, through the isogeny recombination with the genes on the yeast cell, gene engineering hGH yeast is constructed, (2) expression system, using the strain of Pichia pastoris as the expression host for human GH expression through the mode of inter-cell expression and (3) evoking hGH yeast expression for preparing human GH. The present sequence was used tillustrate the invention.
                                                                                                                                                                                                                                                                                                                                                                                                        Sequence 192 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Method for producing gene engineering recombination 192 peptide human growth hormone.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Disclosure; Page 5; 18pp; Chinese.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             WPI; 2004-797651/79
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nes 133; Conserv
                               121 GIQTLMGRLEDGSP 134
                                                                                                                                            TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
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Pred. No. 8.3e-58;
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                                                                                                                                                                                                                                                                                                                        cc peptide sequence, where the mutant peptide sequence encodes an O-linked cc glycosylation site that does not exist in a wild-type polypeptide. Also cd disclosed are pharmaceutical compositions (PC1-4). [1] and PC1 are useful cc for providing G-CSF therapy to a subject in need of the therapy. (I) and PC3 are useful for providing G-CSF therapy to a subject in need ct therapy. (I) and PC3 are useful for providing G-CSF therapy to a subject in need ct therapy. (I) and PC4 are useful for providing interferon ct therapy to a subject in need of therapy. (I) and PC4 are useful for providing interferon ct therapy to a subject in need of therapy. (I) and PC1-PC4 are useful for treating general anemia, chronic renal failure, nephritis, and CC thalassemia, neurological disorders such as brain/spine injury, and hepatitis B cr viral infectious caused by a variety of viruses such as human cc papilloma virus (HBV), coronavirus, HIV; cancers such as AIDS-related CC Kaposi's sarcoma, malignant melanoma, renal cancer, bone cancers, core syndrome (autolmune disease), chronic fatigue syndrome, and pulmonary coronavirus, treating an assortment of other diseases and conditions such as Sjogren's syndrome (autolmune disease), chronic fatigue syndrome, and pulmonary coronavirus, treating an assortment of other diseases and syndrome, and pulmonary coronavirus, treating coronavirus, treating the amilion of the provider of the provider of the provider of the provider of the polymonary coronavirus such as herpes simplex virus (HSV),
                                                                                                                                                                 Matches 133;
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12-FEB-2004; 2004US-054441LP.
20-FEB-20004; 2004US-0546631P.
23-MAR-2004; 2004US-055813P.
12-MAY-2004; 2004US-0570891P.
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anti-HIV; antiinflammatory; virucide; hepatotropic; cytostatic;
immunosuppressive; respiratory-gen.; muscular-gen.; immunomodulator;
Human growth hormone; hGH; mutein.
                                                                                                                                                                                                                                                 Sequence 192
                                                                                                                                                                                                                                                                                                              musculoskeletal
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                                                                                                                                                                                     Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            invention relates to an isolated polypeptide (I) comprising a mutant tide sequence, where the mutant peptide sequence encodes an O-linked
                                                                                                                                                                                                                                                                                      loskeletal infections. The present sequence represents the a sequence of a mutant human growth hormone, hGH, polypeptide.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  mutant polypeptide having O-linked glycosylation site that does not in wild-type polypeptide, useful for providing granulocyte colony lating factor therapy, hormone therapy and interferon therapy.
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                       TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                     MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP
                                                                             MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP
TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE
                                                                                                                                                                 Conservative
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                                                                                                                                                               Score 675; DB 9;
Pred. No. 8.3e-58
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                                                    The invention relates to an isolated polypeptide (I) comprising a mutant competide sequence, where the mutant peptide sequence encodes an O-linked CC glycosylation site that does not exist in a wild-type polypeptide. Also CC disclosed are pharmaceutical compositions (PC1-4). (I) and PC1 are useful for providing G-CSF therapy to a subject in need of the therapy. (I) and PC2 are useful for providing G-CSF therapy to a subject in need of therapy. (I) and PC3 are useful for providing interferon CC therapy to a subject in need of therapy. (I) and PC4 are useful for providing interferon CC therapy to a subject in need of therapy. (I) and PC4 are useful for CC treating general anemia, chronic renal failure, nephritis, and CC treating general anemia, chronic renal failure, nephritis, and CC Treating general infectious caused by a variety of viruses such as human CC papilloma virus (HBV), coronavirus, HIV; cancers such as human CC treating an assortment of other diseases and conditions such as Sjogran's CC treating an assortment of other diseases and conditions such as Sjogran's CC treating an assortment of other diseases and conditions such as Sjogran's CC treating an assortment of other diseases and conditions such as Sjogran's CC treating the disease), chronic fatigue syndrome, and pulmonary CC musculoskeletal infections. The present sequence represents the amino acid sequence of a human growth hormone, hGH, polypeptide.
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12-FEB-2004; 2004US-054441IP.
20-FEB-2004; 2004US-0546631P.
23-MAR-2004; 2004US-0558813P.
12-MAY-2004; 2004US-0570891P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel mutant polypeptide having O-linked glycosylation site that does not exist in wild-type polypeptide, useful for providing granulocyte colony stimulating factor therapy, hormone therapy and interferon therapy.
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Query Match Best Local Similarity Matches 133; Conserv

Conservative

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99.3%;

Score 675; DB 9; Pred. No. 8.3e-58; Mismatches

DB 9; Length 192

Indels

0

Gaps

0

192

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RESULT 15
ARB96376
ID ARB966
XX ARB96
XX Homo
OS Homo
OS Homo
OS Homo
OS Homo
OS Homo
AX ARB96
XX 
The invention relates to an isolated polypeptide (I) comprising a mutant CC peptide sequence, where the mutant peptide sequence encodes an O-linked CC glycosylation site that does not exist in a wild-type polypeptide. Also CC disclosed are pharmaceutical compositions (PC1-4). (I) and PC1 are useful CC PC2 are useful for providing growth hormone therapy to a subject in need CC therapy. (I) and PC3 are useful for providing G-CSF therapy to a subject in need of therapy. (I) and PC3 are useful for providing G-CSF therapy to a subject in need of therapy. (I) and PC4 are useful for providing interferon CC treating general anemda, chronic renal failure, nephritis, and therapy to a subject in need of therapy. (I) and PC1-PC4 are useful for CC treating general anemda, chronic renal failure, nephritis, and CC or C, viral infectious caused by a variety of viruses such as human CC papilloma virus (HBV), coronavirus, HIV; cancers such as AIDS-related CC Kaposi's sarcoma, malignant melanoma, renal cancer, bone cancers, creating an assortment of other diseases and conditions such as Sjogren's syndrome (autoimmune disease), chronic fatigue syndrome, and pulmonary CC fibrosis, treating CNS disorders such as herpes simplex virus (HSV),
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     08-JAN-2004; 2004US-0535284P.
12-FEB-2004; 2004US-0546411P.
20-FEB-2004; 2004US-0546631P.
23-MAR-2004; 2004US-0558813P.
12-MAY-2004; 2004US-0570891P.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Novel mutant polypeptide having O-linked glycosylation site that does not exist in wild-type polypeptide, useful for providing granulocyte colony stimulating factor therapy, hormone therapy and interferon therapy.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       04-AUG-2005.
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immunosuppressive; respiratory-gen.; muscular-gen.; immunomodulator;
Human growth hormone; hGH; mutein.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Human growth
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Example 13; Page 155; 197pp; English.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         (NEOS-)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  antianemic; nephrotropic; neuroprotective; nootropic; cerebroprotective;
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                                                                                                                                                                                                      Sequence 192 AA;
                                                                                                                                                                                                                               musculoskeletal infections. The present sequence represents the amino acid sequence of a mutant human growth hormone, hGH, polypeptide.
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 121
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                                                                                                                                                      133; Conservative
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                                                                                                                 1 MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP
                                                                                                                                                                  Similarity
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GIQTLMGRLEDGSP 134
               GIQTLMGRLEDGSP 134
                                                 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE
                                                                 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLYYGASDSNVYDLLKDLEE
                                                                                                                                                                 99.3%;
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                                                                                                                                                   Score 675; DB 9; Pred. No. 8.3e-58; 0; Mismatches 1
                                                                                                                                                                           Length 192;
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215	215	215	235	241.5	256	290.5	324	325	334	339	343	382.5	390	397	397
31.6	31.6	31.6	34.6	35.5	37.6	42.7	47.6	47.8	49.1	49.9	50.4	56.2	57.4	58.4	58.4
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S38351	S21915	I50763	S04353	JN0387	JT0483	A60623	JS0037	I51188	A56816	I51250	S21750	S04929	B32435	A60509	A60625
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tisfying chosen parameters: 283416	י דייניני די	
0 200000000	STHU Somatotropin 1 precursor [validated] - human	
m Match 0%	N;Alternate names: growth hormone 1; nGH-N; plutitary somatotropin N;Contains: growth hormone 5K peptide; somatotropin 1, long form; somatotropin 1, short C:Species: Homo sapiens (man)	in 1, long form; somatotropin 1, short
first	C;Date: 24-Apr-1984 #sequence revision 10-Feb-1995 #text_change 09-Jul-2004 C;Accession: A93731; A32435; A93694; A94247; A90051; A93397; A93778; A91764;	95 #text_change 09-Jul-2004 151; A93397; A93778; A91764; A90217; A92
) più 0:	Nucleic Acids Res. 9, 3719-3730, 1981	•
Δ.Δ	A; litte: numan growth hotmone bus sequence and me A; Reference number: A93731; MUID:82014939; PMID:6 A.Accession: A93731	269091
number of results predicted by chance to have a	A;Molecule type: DNA A;Residues: 1-217 <den></den>	
analysis of the total score distribution.	A;CLOBS-RELECEBICES: UNIFACTIFULATI UNIFARC: PETIOUVUVZED AE; GB: YUUSSU  A;Note: the 20K short form somatotropin lacks residues 58-72 (32-46 in  B;Chen V V C Gmith D W Barrova-Caldana H D Galinac	idues 58-72 (32-46 in the active hormon
SUMMARIES	Genomics 4, 479-497, 1989	hiology and evolution
ength DB ID Description	A;Reference number: A32435; MUID:89307277; PMID:2744760 A;Accession: A32435	2101097
1 STHU somatotropin 1	200	071. NTD.~1021/0. DITN. NNE25/0 1. DIT.
1 STHUV somatotropin	R;Roskam, W.; Rougeon, F.	
1 STHUV2 somatotropin 2	Nucleic Acids Res. 7, 305-320, 1979	o of the himan growth hormone attrictions
2 167408	A; Reference number: A93694; MUID:80034477; PMID:386281	86281
	A;Accession: A93694 A:Molecule type: mRNA	
1 LCHUC choriomammotrop		
	A;Cross-references: UNIPARC:UPI000002B7EE; GB:V00519 A;Note: 35-Pro was also found	519
2 B49159 2 BN0140	R; Martial, J.A.; Hallewell, R.A.; Baxter, J.D.; Goodman,	oodman, H.M.
2 JK0219 somatotropin -	A; Title: Human growth hormone: complementary DNA cloning	cloning and expression in bacteria.
	A; Reference number: A94247; MUID: 79203293; PMID: 3	77496
2 JC4632 somatotropin	A; Molecule type: mRNA	
	A; Cross-references: UNIPARC: UPI000002B7EE	
1 STRT somatotropin	R;Li, C.H.; Dixon, J.S.; Liu, W.K.	
somatotropin -	A; Title: Human pituitary growth hormone. XIX. The primary structure	primary structure of the hormone.
1 STHO Somatotropin	A; Contents: annotation	
	Arch. Biochem. Biophys. 146, 233-236, 1971	
217 1 STSH somatotropin precu 217 2 S32682 somatotropin - dom	A90051; MUID:721	one. XXXII. The primary structure of the hormone: rev .43935; PMID:5144027
2 JC1514 somatotropin p	A, Accession: A90051	

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A; Cross-references: UNIPARC:UPI000017346F; UNIPARC:UPI0000173470
R; Singh, R.N.P.; Seavey, B.K.; Lewis, L.J.; Lewis, U.J.
J. Protein Chem. 2, 425-436, 1983
A; Title: Human growth hormone peptide 1-43: isolation from pituitary
A; Reference number: A61466
A; Roccession: A61466
A; Accession: A61466
A; Roclecule type: protein
A; Residues: 27-69 <SIN'
A; Cross-references: UNIPARC:UPI00000350CF
A; Note: growth hormone 5K peptide has insulin potentiating activity;
R; Robson, V.M.J.; Rae, I.D.; NG, F.
Biol. Chem. Hoppe-Seyler 371, 423-431, 1990
A; Title: Identification of the aspartimide structure in a previously
A; Reference number: S09685; MUID:90334745; PMID:2378679
A; Reference number: S09685; MUID:90334745; PMID:2378679
                                                                                                                                                                                                                                                                A;Molecule type: protein
A;Residues: 27-34,'L',36-47 <ROB>
A;Cross-references: UNIPARC:UPI0000173471
R;de Vos, A.M.; Ultsch, M.; Kossiakoff, A
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A;Molecule type: protein
A;Residues: 46-57/73-80 <LEW>
A;Residues: 46-57/73-80 <LEW>
A;Residues: 46-57/73-80 <LEW>
A;Cross-references: UNIPARC:UPI000017346D; UNIPARC:UPI000017346B
R;Chapman, G.B.; Rogers, K.M.; Brittain, T.; Bradshaw, R.A.; Bates, O.J.; Turner, C.;
R;Chapman, G.B.; Rogers, K.M.; Brittain, T.; Bradshaw, R.A.; Bates, O.J.; Turner, C.;
J. Biol. Chem. 256, 2395-2401, 1981
J. Biol. Chem. 256, 2395-2401, 1981
A;Title: The 20,000 molecular weight variant of human growth hormone. Preparation and A;Reference number: A92311; MUID:81117361; PMID:7462247
A;Contents: somatotropin, 20K short variant
A;Accession: A92311
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A;Residues: 27-217 <BBW>
A;Residues: 27-217 <BBW>
A;Conss-references: UNIPARC:UPI0000033871
A;Cones-references: UNIPARC:UPI0000033871
R;Lewis, U.J.; Bonewald, L.F.; Lewis, L.J.
Blochem. Biophys. Res. Commun. 92, 511-516, 1980
Blochem. Biophys. Res. Commun. 92, 511-516, 1980
Blochem. Biophys. Res. Commun. 92, 511-516, 1980
A;Content Beautiful State Sta
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R;Bewley, T.A.; Dixon, J.S.; Li, C.H.
Int. J. Pept. Protein Res. 4, 281-287, 1972
A;Title: Sequence comparison of human pituitary growth hormone, human chorionic somatoma A;Reference number: A91764; MUID:73092028; PMID:4675454
A;Accession: A91764
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R;Niall, H.D.; HOgan, M.L.; Sauer, R.; Rosenblum, I.Y.; Greenwood, F.C.
Proc. Natl. Acad. Sci. U.S.A. 68, 866-869, 1971
A;Title: Sequences of pituitary and placental lactogenic and growth hor
A;Reference number: A93778; MUID:71153968; PMID:5279528
A;Accession: A93778
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A;Residues: 27-94;96-217 <LIC>
A;Cross-references: UNIPARC:UPI0000173468; UNIPARC:UPI0000173469
R;Niall, H.D.
A, Title: Human growth hormone and extracellular domain of its A, Reference number: A41728; MUID:92196577; PMID:1549776 A; Contents: annotation; X-ray crystallography, 2.8 angetroms A; Note: the structure of the complex with growth hormone recep
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 A; Molecule type: protein A; Residues: 27-57;73-79 < CHA>
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A;Residues: 119-120;157-159 <NI2>
A;Cross-references: UNIPARC:UPI000017346B; UNIPARC:UPI000017346C
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                                                                                                                                                                                                                             Science 255, 306-312, 1992
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A;Cross-references: UNIPROT:P33093; UNIPARC:UPI000003BE15; GB:L16556; NID:g293114; PIDN:JR;Li, C.H.; Chung, D.; Lahm, H.W.; Stein, S. Arch. Biochem. Biophys. 245, 287-291, 1986
A;Title: The primary structure of monkey pituitary growth hormone.
A;Reference number: A05094; MUID:86129460; PMID:3080959
                                                                                                                                                                                                                                                                                                                                                                                                                                                  R;Golos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.
Endocrinology 133, 1744-1752, 1993
A;Title: Cloning of four growth hormone/chorionic somatomammotropin-related A;Reference number: 153267; MUID:94008724; PMID:8404617
A;Accession: 167410
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            C;Superfamily: prolactin
C;Keywords: alternative splicing; hormone; pituitary
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-217/Product: somatotropin 1, long form #status experimental <SOL>
F;27-69/Product: growth hormone 5K peptide #status experimental <5KP>
F;27-69/Product: growth hormone 5K peptide #status experimental <5KP>
F;27-57/3-217/Product: somatotropin 1, short form #status experimental
F;79-191,208-215/Disulfide bonds: #status experimental
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A;Title: Periplasmic production of correctly processed A;Reference number: I41126; MUID:86137393; PMID:3912261
                                                                                                                                                               A;Molecule type: protein
A;Residues: 27-99,'Q',101-178,'D',180-217 <LIC>
A;Cross-references: UNIPARC:UPI00001765E4
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A; Introns: 4/1; 57/3; 97/3; 1
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A; Residues: 1-26 < RES>
A; Contents: annotation; C; Superfamily: prolactin
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A; Residues: 1-217 < RES>
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                                            A; Reference
                                                                   A: Title: Preparation
                                                                                           Science 125, 883-884, 1957
                                                                                                                                           A, Note: the monkey species
                                                                                                                                                                                                                                       A; Accession: A05094
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99.2%;
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                        source organism
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A;Gene: GDB:GH2
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A;Map position:
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J. Clin. Endocrinol. Metab. 71, 15-18, 1990
A;Title: Identification of placental human growth hormone as the growth hormone-V gene A;Reference number: A60711; MUID:90317018; PMID:2196278
A;Accession: A60711
A;Molecule type: protein
A;Roceule type: protein
A;Residues: 27-44;46-57 <FRA>
A;Ross-references: UNIPARC:UPI0000173473
A;Cross-references: UNIPARC:UPI000173473
A;Cross-references: UNIPARC:UPI000173474
A;Experimental Source: tissue placenta
A;Note: partial glycosylation was demonstrated by lectin binding
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              A;Cross-references: UNIPARC:UPI0000173472
R;Igout, A.; Scippo, M.L.; Frankenne, F.; Hennen, G.
Arch. Int. Physiol. Biochim. 96, 63-67, 1988
A;Title: Cloning and nucleotide sequence of placental hGH-V cDNA.
A;Reference number: I52104; MUID:89024984; PMID:2460050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Cross-references: UNIPROT:P01242; UNIPARC:UPI0000135C87; GB:J0307 R;Cooke, N.E.; Ray, J.; Emery, J.G.; Liebhaber, S.A. J. Biol. Chem. 263, 9001-9006, 1988 A;Title: Two distinct species of human growth hormone-variant mRNA A;Reference number: A92725; MUID:88243769; PMID:3379057 A;Accession: B28072
                                                                           A; Note: partial C; Comment: This C; Genetics:
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                                                                                                                                                                                                                                                                                                                                                                                                                                        A;Accession: I52104
A;Status: preliminary; translated from GB/EMBL/DDBJ
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A; Residues: 1-34,'P',36-217 <SEE>
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A; Residues: 1-217 < COO>
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A; Residues: 1-217 < CHE>
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N;Alternate names: growth hormone 2; growth hormone variant;
N;Contains: somatotropin 2, long splice form; somatotropin 2,
C;Species: Homo sapiens (man)
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                          Cross-references:
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                                                                                                  Comment: This
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Best Local
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239-249, 1982
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                                                                                                  gene
     17q22-17q24
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                            GDB:119983;
                                                                                                        18
                                                                                                  expressed
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                            OMIM:139240
                                                                                             demonstrated by lectin binding by the placenta.
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Pred. No. 6.5e-55;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    hGH-V; placental somatotrop, short splice form
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      0
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 recent
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167409
chorionic somatomammotropin-3 - rhesus macaque C; Species: Macaca mulatta (rhesus macaque)

RESULT

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A;Map position: 17q22-17q24
A;Introns: 4/1; 57/3; 97/3; 152/3
C;Superfamily: prolactin
C;Keywords: alternative splicing; hormone; placenta
C;Keywords: alternative splicing; hormone; placenta
C;Keywords: alternative splicing; hormone; placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               R;Cooke, N.E.; Ray, J.; Emery, J.G.; Liebhaber, S.A. J. Biol. Chem. 263, 9001-9006, 1988
A;Title: Two distinct species of human growth hormone-variant A;Reference number: A92725; MUID:88243769; PMID:3379057
A;Accession: A28072
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-217/Product: somatotropin 2, long splice form #status predicted
F;27-57,73-217/Product: somatotropin 2, short splice form #status pre
F;79-191,208-215/Disulfide bonds: #status predicted
F;166/Binding site: carbohydrate (Asn) (covalent) #status predicted
                                                                          В
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A;Cross-references: GDB:119983; OMIM:139240
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      A; Molecule type: mRNA
A; Residues: 1-256 < COO>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               somatotropin 2 precursor, splice form 2 - human N;Alternate names: growth hormone variant-2; placental somatotropin form 2
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C;Keywords: alternative splicing; glycoprotein; hormone; placenta
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A; Introns: 4/1; 57/3;
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Best Local
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;Date: 30-Sep-1989 #sequence_revision 10-Feb-1995 #text_change 09-Jul-2004
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                                                                                                  PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG 121
                                                                                                                                                                                 FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT 61
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     IQTLMGRLEDGSP 134
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT
                                    IQTLMG-RLEDGSP 134
                                                                            PSNRVKTQQKSNLELLRISLLLIQSWLEPVQLLRSVFANSLVYGASDSNVYRHLKDLEEG
                                                                                                                                                         FPTIPLSRLFDNAMLRARRLYQLAYDTYQEFEEAYILKEQKYSFLQNPQTSLCFSESIPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           IQTLMWRLEDGSP 159
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IQTLMWVRVAPGIP
                                                                                                                                                                                                                                             Conservative
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160
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                                                                                                                                                                                                                                                              Score 570.5;
Pred. No. 1.3
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Pred. No. 7.5e-51;
3; Mismatches 8
                                                                                                                                                                                                                                               Mismatches
                                                                                                                                                                                                                                                                  1.3e-47;
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                                                                                                                                                                                                                                                                                   DB 1;
                                                                                                                                                                                                                                                                                                                                                    <SIG>
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chorionic somatomammotropin-1 - rhesus macaque C;Species: Macaca mulatta (rhesus macaque) C;Date: 31-May-1996 #sequence_revision 31-May-1996 C;Date: 31-May-1996 #sequence_revision 31-May-1996 C;Accession: I53267 R;Golos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P Endocrinology 133, 1744-1752, 1993 A;Title: Cloning of four growth hormone/chorionic s
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             chorionic somatomammotropin-2 - rhesus macaque (fragment)
(;Species: Macaca mulatta (rhesus macaque)
(;Decies: Macaca mulatta (rhesus macaque)
(;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change 09-Jul-2004
(;Accession: I67408
R;Accession: I67408
R;Golos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.
Endocrinology 133, 1744-1752, 1992
Endocrinology 133, 1744-1752, 1992
Endocrinology 16 four growth hormone/chorionic somatomammotropin-related complementar
A;Title: Cloning of four growth hormone/chorionic somatomammotropin-related complementar
A;Reference number: I53267; MUID:94008724; PMID:8404617
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R;Golos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.
Indocrinology 133, 1744-1752, 1993
A;Title: Cloning of four growth hormone/chorionic somatomammotropin-related A;Reference number: I53267; MUID:94008724; PMID:8404617
A;Accession: 167409
A;Status: preliminary; translated from GB/EMBL/DDBJ
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C;Superfamily: prolacti
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A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mRNA
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A; Residues: 1-217 < RES>
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Best Local
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                                                                                                                                                                                                                                                                                                                                                                                                                                           PTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPTP
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                                                                                                                                                                                                                                              ETLMWRLEDGIP
                                                                                                                                                                                                                                                                                                                              SNLEETQQKSNLELLRISLLLIQSWLEPVQFLSSVFANNLLHHTSDSDVHDLLKDLEEGI
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81.1%;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Score 550; DB 2;
Pred. No. 9.5e-46;
7; Mismatches 10
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 558; DB 2;
Pred. No. 1.7e-46;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           UNIPARC: UPI0000088EB6; GB:L16553;
                                                   P.D.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       10;
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    somatomammotropin-related
                                                                                        #text_change
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choriomammotropin A precursor [validated] - human N;Alternate names: chorionic somatomammotropin 1; placental lactogen C;Species: Homo sapiens (man) C;Date: 23-Oct-1981 #sequence_revision 23-Oct-1981 #text_change 09-Jul-2004 C;Accession: C32435; A94422; I53342; A93833; A93192; A90054; A94427; A61283; R;Chen, B.Y.; Liao, Y.C.; Smith, D.H.; Barrera-Saldana, H.A.; Gelinas, R.E.; Genomics 4, 479-497, 1989
A;Ritle: The human growth hormone locus: nucleotide sequence, biology, and evaluations of the companion of the 
                                                                                                                                                                                                                                                                                                             TCHUC
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                A;Status: preliminary; translated
A;Molecule type: mRNA
A;Residues: 1-217 <RES>
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          R;Golos, T.G.; Durning, M.; Fisher, J.M.; Fowler, P.D.
Endocrinology 133, 1744-1752, 1993
A;Title: Cloning of four growth hormone/chorionic somatomammotropin-related complementary
A;Reference number: I53267; MUID:94008724; PMID:8404617
A;Accession: I67411
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N,Alternate names: growth hormone

C;Species: Macaca mulatta (rhesus macaque)

C;Date: 31-May-1996 #sequence_revision 31-May-1996 #text_change

C;Accession: 167411
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A;Accession: I53267
A;Status: preliminary; translated from GB/EMBL/DDBJ
A;Molecule type: mENA
A;Residues: 1-217 <RES>
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Pred.
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Pred. No. 1.2e-45;
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No. 9.8e-46;
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                                                                                                                                   155229; 1596
Seeburg, P.F
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A;Accession: A94427
A;Mccession: A94427
A;Mccession: A94427
A;Molecule type: protein
A;Residues: 27-217 <NIA>
A;Cross-references: UNIPAC:UPI0000173477
A;Cross-references: UNIPAC:UPI0000173477
A;Experimental source: placenta
R;Nic A Bhaird, N.; Tipton, K.F.
Biochem. Soc. Trans. 19, 20S, 1991
A;Title: Catechol-O-methyltransferase from human placenta: purification and some propert
A;Reference number: A61283; MUID:91244006; PMID:2037148
A;Accession: A61283
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R;Li, C.H.; Dixon, J.S.; Chung, D.
Arch. Biochem. Biophys. 155, 95-110, 1973
A;Title: Amino acid sequence of human chorionic somatomammotropin.
A;Reference number: A90054; MUID:73201971; PMID:4712450
A;Accession: A90054
                                                                                                                                                                                                        A;Cross references: UNIPARC:UPI0000173478
A;Note: choriomammotropin apparently copurified with placental R;Sherwood, L.M.; Handwerger, S.; McLaurin, W.D.; Lanner, M. Nature New Biol. 233, 59-61, 1971
Nature New Biol. 233, 59-61, 1971
A;Title: Amino-acid sequence of human placental lactogen.
A;Reference number: A93401; MUID:72016313; PMID:5286363
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A;Residues: 1,3-26 <SHE>
A;Residues: UNIPARC:UDI0000173475
A;Cross-references: UNIPARC:UDI0000173475
A;Experimental source: placenta
R;Shine, J.; Seeburg, P.H.; Martial, J.A.; Baxter, J.D.; Goodman, H.M.
Nature 270, 494-499, 1977
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R;Tanaka, M.; Masuda, N.; Watahiki, M.; Yamakawa, M.; Shimizu, Biochem. Int. 16, 287-292, 1988
A;Title: cDNA cloning of human chorionic somatomammotropin-1 mF A;Reference number: I52342; MUID:88209096; PMID:2835050
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               in Prolactin and Carcinogenesis, Proc. Fourth Tenovus Workshop Prolactin, A_i, Title: The chemistry of the human lactogenic hormones.
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A;Residues: 27-217 <LIC>
A;Cross-references: UNIPARC:UPI0000173477
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                                                                                                      A; Contents: annotation R; Sherwood, L.M.; Handwerger, S.; Nature New Biol. 235, 64, 1972
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A; Residues: 50-217 <SHI>
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A; Residues: 1-3 <TAN>
                              A; Contents: annotati
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A; Residues: 1-217 <GOO>
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                                     annotation
A.B.; Kowalski, K.; Russell, J.; Sherwood, L.M.
                                                                        A93405
                                                                                                                                            McLaurin,
                                                                                                                                            W.D.; Lanner,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           extra piece of the precursor to
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N,Alternate names: chorionic somatomammotropin 2
()Species: Homo sapiens (man)
()Date: 29-Dec-1989 #sequence_revision 29-Dec-1989 #text_change 09-Jul-2004
()Accession: E32435
R;Chen, B.Y.; Liao, Y.C.; Smith, D.H.; Barrera-Saldana, H.A.; Gelinas, R.E., Genomics 4, 479-497, 1989
A;Title: The human growth hormone locus: nucleotide sequence, biology, and A;Reference number: A32435; MUID:89307277; PMID:2744760
A;Accession: E32435
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A;Contents: annotation; dimeric disulfide bonds
R;Selby, M.J.; Baxta, A.; Baxter, J.D.; Bell, G.I.; Eberhardt, N.L.
J. Biol. Chem. 259, 13131-13138, 1984
A;Title: Analysis of a major human chorionic somatomammotropin gene. Evidence for two fur A;Reference number: 155229; MUID:85030426; PMID:6208192
A;Accession: 155229
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F;1-26/Domain: signal sequence #status experimental <SIG>
F;27-217/Product: choriomammotropin A #status experimental <MAT>
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Trans. Assoc. Am. Physicians 90, 109-116, 1977
A;Title: Nuclectide sequence of a human gene coding for a polypeptide hormone.
A;Reference number: I59658; MUID:78160787; PMID:611657
                         A;Gene: GDB:CSH2
A;Cross-references: GDB:119813; OMIM:118820
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A; Residues: 1-217 < CHE
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A; Introns: 4/1; 57/3; 97/3; 152/3
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A; Residues: 160-217 < RE2>
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position: 17q22-17q24
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107; Conserv
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N;Alternate names: growth hormone
C;Species: Mesocricetus auratus (golden hamster)
C;Date: 19-Dec-1993 #sequence_revision 18-Nov-1994 #text_change 09-Jul-2004
C;Accession: B49159
R;Southard, J.N.; Sanchez-Jimenez, F.; Campbell, G.T.; Talamantes, F.
Endocrinology 129, 2965-2971, 1991
A;Title: Sequence and expression of hamster prolactin and growth hormone messenger RNAs.
A;Reference number: A49159; MUID:92063850; PMID:1954881
A;Accession: B49159
A;Status: preliminary
A;Status: preliminary
A;Status: preliminary
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B49159
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A;Residues: 1-215 <HIR>
A;Residues: 1-215 <HIR>
A;Cross-references: UNIPROT:P01243; UNIPARC:UPI00001765E0
C;Superfamily: prolactin
F;1-26/Domain: signal sequence #status predicted <SIG>
F;27-215/Product: choriomammotropin, hCS-3 allele #status predicted
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C;Date: 30-Jun-1988 #sequence_revision 30-Jun-1988 #text_change 09-Jul-2004
C;Accession: A26449
R;Hirt, H.; Kimelman, J.; Birnbaum, M.J.; Chen, E.Y.; Seeburg, P.H.; Eberhardt, N.L.; B. DNA 6, 59-70, 1987
DNA 6, 59-70, 1987
A;Title: The human growth hormone gene locus: structure, evolution, and allelic variation A;Reference number: A26449; MUID:87161235; PMID:3030680
A;Cross-references: UNIPROT:P37886; UNIPARC:UPI0000135CAC; GB:S66299; NID:g239355; A;Note: sequence extracted from NCBI backbone (NCBIN:66299, NCBIP:66300) C;Superfamily: prolactin
                                                                  A; Molecule type: mRNA
A; Residues: 1-216 < SOU>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        TLMGRLEDGS 133
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               TIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPTPS
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                                                                                                                                                                                                                                                                                                                                                                                                                                               TLMGRLEDGS 156
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    NMEETQQKSNLELLRL-LLLIESWLEP-RFLRSMFANNLVYDTSDSDDYHLLKDLEEGIQ
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         TVPLSRLFDHAMLQAHRAHQLAIDTYQEFEETYIPKDQKYSFLHDSQTSFCFSDSIPTPS
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A;Cross-references: UNIPROT:P20392; UNIPARC:UPI0000135CAA;Experimental source: pituitary gland C;Superfamily: prolactin F;1-190/Product: somatotropin #status experimental <MAT>
                                                                                                                                                               R;Hulmes, J.D.; Miedel, M.C.; Li, C.H.; Pan, Y.C.E. Int. J. Pept. Protein Res. 33, 368-372, 1989
A;Title: Primary structure of elephant growth hormone.
                                                                                                                                                                                                                         N;Alternate names: growth hormone
C;Species: Loxodonta africana (African elephant)
C;Date: 03-Aug-1992 #sequence_revision 03-Aug-1992 #text_change 09-Jul-2004
C;Accession: JK0219
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  C;Superfamily: prolactin
C;Keywords: growth factor; hormone
F;52-163,180-188/Disulfide bonds: #status predicted
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Biokhimiia 47, 1059-1069, 1982
A;Title: Amino acid sequence of seiwhale somatotropin.
A;Reference number: PN0140; MUID:83000569; PMID:7115813
A;Accession: PN0140
                                                                                                                        A; Reference number: JK0219
A; Accession: JK0219
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A;Note: article in Russian with English abstract
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                                                                                   A;Residues: 1-190 <HUL>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        PTGKEEAQQRSDMELLRFSLLLIQSWLGPVQFLSRIFTNSLMFGTSD-RVYEKLKDLEEG
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                                                                                                                                                                                                                                                                                                                                                                                                                      IQALMRELEDGSP 131
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PANKDEAQQRSDVELLRFSLLLIQSWLGPVQFLEKAYANELVFGTSD-RVYEKLKDLEEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FPAMPLSSLFANAVLRAQHLHELAADTYKEFERAYIPEGQRY-FLQNAQSTGCFSEVIPT
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      17; Mismatches
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 441; DB 2;
Pred. No. 2.8e-35;
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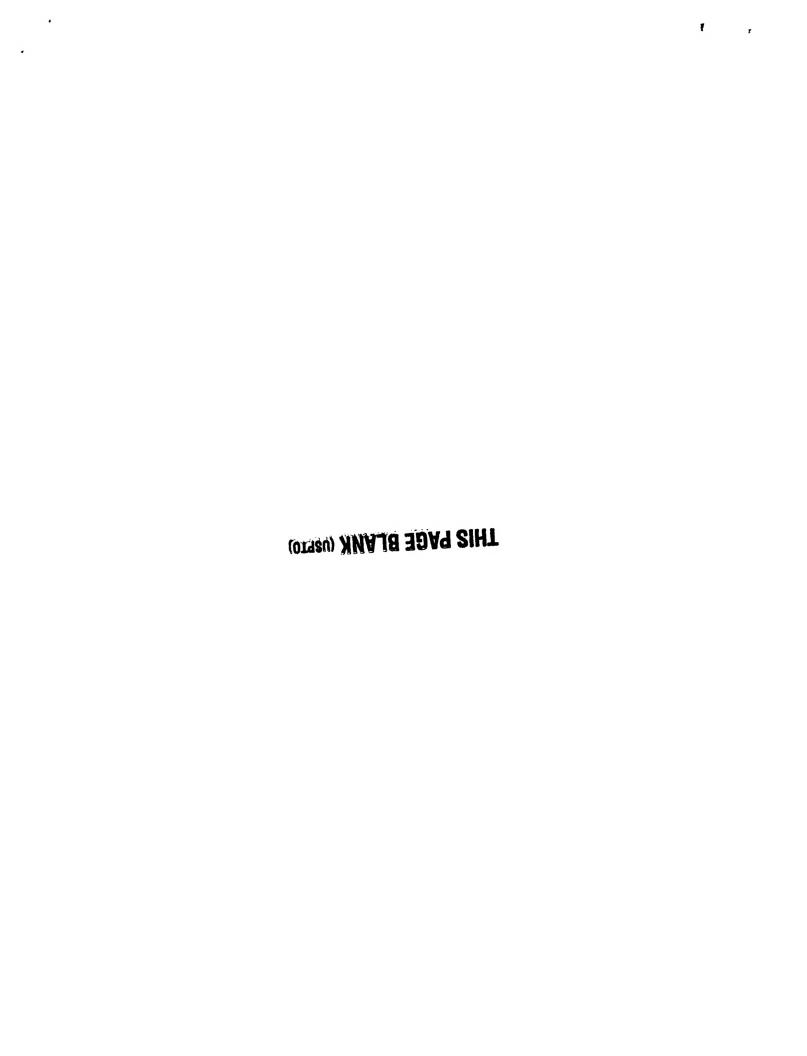
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A; Molecule type: mRNA
A; Residues: 97-108, 'E', 110-158 < YAN>
A; Residues: 97-108, 'E', 110-158 < YAN>
A; Cross-references: UNIPARC: UPI000017347C
A; Experimental source: pituitary
R; Mills, J.B.; Howard, S.C.; Scapa, S.; Wilhelmi, A.E.
J. Biol. Chem. 245, 3407-3415, 1970
A; Title: Cyanogen bromide cleavage and partial amino acid sequence (A; Reference number: A01516; MUID:70293161; PMID:4918150
A; Accession: A01516
A; Molecule type: protein
                                                                                                                                                                                                                                                                                        A;Molecule type: mRNA
A;Residues: 1-8,'V',10-21,'Q',23-42 <SUX>
A;Residues: 1-8,'V',10-21,'Q',23-42 <SUX>
A;Cross-references: UNIPARC:UPI000088415; GB:M22761; NID:g164479; PIDN:AAA31046.1; P
R;Yang, Q.; Zhu, B.L.; Zhou, S.W.; Qi, S.Z.
Chinese J. Biotechnol. 8, 318-323, 1992
A;Title: Cloning and partly sequencing of the porcine growth hormone (pGH) gene from
A;Reference number: PC1063
A;Accession: PC1063
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPARC:UPI000002BAC4; GB:X53325; NID:g288361; PIDN:CAA37411.1; R;Seeburg, P.H.; Sias, S.; Adelman, J.P.; de Boer, H.A.; Hayflick, J.; Jhurani, P.; DNA 2, 37-45, 1983
A;Title: Efficient bacterial expression of bovine and porcine growth hormones. A;Reference number: 145898; MUID:83209123; PMID:8303731
A;Accession: 146584
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A;Cross-references: UNIPROT:P01248; UNIPARC:UPI000002BAC4; GB:M17704; NID:g164475; PIDN R;Kato, Y.; Shimokawa, N.; Kato, T.; Hirai, T.; Yoshihama, K.; Kawai, H.; Hattori, M.A. Biochim. Biophys: Acta 1048, 290-293, 1990
A;Title: Porcine growth hormone: molecular cloning of cDNA and expression in bacterial A;Reference number: S09015; MUID:90212663; PMID:2182128
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         RESULT 15
STPG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Gene 69, 81-89, 1988
A;Title: A multisite-directed mutagenesis using T7 DNA polymerase:
A;Reference number: 146585; MUID:89137997; PMID:3224824
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           A;Molecule type: mRNA
A;Residues: 7-8,'V',10-21,'Q',23-216 <SEE>
A;Cross-references: UNIPARC:UPI00001422D1; GB:M27326; NID:g164477; PIDN:AAA31045.1;
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A; Title: Isolation and characterization of the porcine growth hormone A; Reference number: JW0015; MUID:88030700; PMID:3666458
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C;Date: 30-Jun-1992 #sequence revision 30-Jun-1992 #text_change 09-Jul-2004
C;Accession: JW0015; S09015; T46584; T46585; PC1063; A01516; A94594
R;Vize, P.D.; Wells, J.R.E.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   A; Molecule type: mRNA
A; Residues: 1-216 < KAT>
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A; Residues: 1-216 < VIZ>
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT 61
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C;Keywords: anterior pituitary; growth factor; hormone F;1-26/Domain: signal sequence #status predicted <SIG>F;27-216/Product: somatotropin #status predicted <MAT>F;78-189/Disulfide bonds: #status predicted
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     A;Residues: 27-30;149-194,'N',196-216 <MIL>
A;Cross-references: UNIPARC:UPI000017347D; UNIPARC:UPI000017347E
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Search completed: May 11, 2006, 12:02:19 Job time : 40 secs



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InterPro; IPR001400; Somatotropin.
PANYHER; PTHR11417; Somatotropin; 1.
Pfam; PF00103; Hormone_1; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Somatotropin precursor (Growth hormone) (Growth hormone 1).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SOMA_PANTR
P58756;
     SEQUENCE
                                                                                                 SIGNAL
                                                                                                                                           PROSITE; PS00266; SOMATOTROPIN_1; 1. PROSITE; PS00338; SOMATOTROPIN_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 between
                                                                                                                                                                                                 PRINTS; PR00836; SOMATOTROPIN.
                                                                                                                         Hormone; Pituitary;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Local
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       SUBCELLULAR SIMILARITY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       mitted (APR-2001) to the EMBL/GenBank/DDBJ databases. FUNCTION: Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other
                                                                                                                                                                                                                                                                                                                                                                                                                                                   as
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          European
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        tissues (By similarity)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Swiss-Prot entry is copyright. It is produced through a collaboration een the Swiss Institute of Bioinformatics and the EMBL outstation -
                                                                                                                                                                                                                                                                                                                          P58756;
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                                                                                                                                                                                                                                                                                                                                            AF374232;
P01241; 1H
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                                                                                                                                                                                                                                                                                                                          27-216.
                                                                                                                                                                                                                                                                                                                                                                                                                                           Bioinformatics Institute. There are no restrictions of as its content is in no way modified and this statement
                                                                                                                                                                                                                                                                                                                                                    1HWG.
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                                                                                                                                                                                                                                                                                                                                                                        AAL72284.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Belongs to the somatotropin/prolactin family.
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RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Altschul S.F., Zeeberg B., Buetow K.H., Schaefer C.F., Bhat N.K.,
RA Hopkins R.F., Jordan H., Moore T., Max S.I., Wang J., Hsieh F.,
RA Stapleton M., Soares M.B., Bonaldo M.F., Casavant T.L., Scheetz T.E.,
RA Stapleton M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., Usdin T.B., Toshiyuki S., Carninci P., Prange C.,
RA Brownstein M.J., McEwan P.J., McKernan K.J., Malek J.A., Gunaratne P.H.,
RA Raha S.S., Loquellano N.A., Peters G.J., Abramson R.D., Mullahy S.J.,
RA Raha S.S., Morley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Gay L.J., Hulyk S.W.,
RA Richards S., Worley K.C., Hale S., Garcia A.M., Sodrigues S., Sanchez A.,
RA Richards S., Worley M., Sodergren B.J., Lu X., Gibbs R.A.,
RA Fahey J., Helton E., Ketteman M., Madan A., Rodrigues S., Sanchez A.,
RA Willialon D.K., May D.M., Green E.D., Dickson M.C.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
RA Butterfield Y.S.N., Krzywinski M.I., Skalska U., Smailus D.E.,
"Generation and initial analysis of more than 15,000 full-length human
and mouse cDNA sequences.";
Proc. Natl. Acad. Sci. U.S.A. 99:16899-16903 (2002).
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                             PROSITE;
                                                                                GO; GO:0005576; C:extracellular region; GO:00005179; F:hormone activity; IEA InterPro; IPR012351; Cytokine 4 hlx. InterPro; IPR01240; Somatotropin. Pfam; PF00103; Hormone 1; 1. PRINTS; PR00836; SOMATOTROPIN.
                                                                                                                                                                                                                                                     EMBL; BC090045; AAH90045.1; -; mRNA.
SMR; Q5EB53; 27-216.
Ensembl; ENSG00000189162; Homo sapiens.
                                                                                                                                                                                                                                                                                                                                         Submitted (FEB-2005) to the control of the submitted (FEB-2005) to the submitted (FEB-
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TISSUE=Pituitary;
MEDLINE=22388257; PubMed=12477932; DOI=10.1073/pnas.242603899;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Eukaryota; Metazoa;
Mammalia; Eutheria;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Growth hormone 1, isoform 1.
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                          PS00266; SOMATOTROPIN PS00338; SOMATOTROPIN
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                       SOMATOTROPIN_1;
SOMATOTROPIN_2;
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Last annotation updat
                                                                                                                                                                                                                                                                                                                                         EMBL/GenBank/DDBJ databases ecreted (By similarity).
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RESULT 4
Q6IYF1 HU
ID Q6IYF
AC Q6IY
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RESULT 5
Q6IYF0_HUMAN
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Matches 131
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Best Local :
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Hormone.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Pfam; PF00103; Hormone 1; 1.
PRINTS; PR00836; SOMATOTROPIN.
PROSITE; PS00266; SOMATOTROPIN 1; 1.
PROSITE; PS00338; SOMATOTROPIN 2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Ensembl; ENSG00000189162; Homo sapiens. GO; GO:0005576; C:extracellular region; GO:0005179; F:extracellular region; GO; GO:0005179; F:extracellular region; Interpro; IPR012351; Cytokine 4 hlx. Interpro; IPR001400; Somatotropin. PANTHER, PTHR11417; Somatotropin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Jorge A.A.L., Arnhold I.J.P., Mendonca B.B.;
Submitted (APR-2004) to the EMBL/GenBank/DDBJ databases.
-I-SUBCELLULAR LOCATION: Secreted (By similarity).
EMBL; AY613431; AAT11508.1; -; mRNA.
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SMR; Q6IYF1; 27-21
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Homo sapiens (Human)
Eukaryota; Metazoa;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Growth hormone 1 variant
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NCBI_TaxID=9606;
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                                                                                                                                                 IQTLMGRLEDGSP 134
                                                                                                                                                                                                                          PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
                                                                                                                                                                                                                                                                                            FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 IQTLMGRLEDGSP
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                                                                                                    IQTLMGRLEDGSP 159
                                                                                                                                                                                                 PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
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Euarchontoglires; Primates; Catarrhini; Hominidae;
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99.2%;
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98.5%;
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                                                                                                                                                                                                                                                                                                                                                                                         Score 666; DB 2;
Pred. No. 1.9e-55;
0; Mismatches 2
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Pred. No. 8e-56;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             12DB1B92F63934D8 CRC64;
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Best Local S
Matches 131
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J1 PYGRO
Q4VUJ1_E
                                                                                                                                                                                                                                                                                                              13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Growth hormone-like protein 1.
Growth hormone-like protein 1.
Fygathrix roxellana (Golden snub-nosed monkey).
Sukaryota, Metazoa, Chordata, Craniata, Vertebrata, Euteleo,
Mammalia, Eutheria, Euarchontoglires, Primates, Catarrhini,
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SEQUENCE
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                                                                           NUCLEOTIDE SEQUENCE.
PubMed=15848116; DOI=10.1016/j.gene.2005.03.003;
Ye C., Li Y., Shi P., Zhang Y.P.;
"Molecular evolution of growth hormone gene fami monkeys and hominoids.";
Gene 350:183-192(2005).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             SMR; OGIYFO; 77-216.
Ensembl; ENSG00000189162; Homo sapiens.
GO; GO:0005576; C:extracellular region;
GO; GO:0005179; F:hormone activity; IEA.
InterPro; IPR011351; Cytokine 4 hlx.
InterPro; IPR01130; Sommatotropin;
PANTHER; PTHR11417; Sommatotropin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Pfam; PF00103; Hormone 1; 1.
PRINTS; PR00836; SOMATOTROPIN.
PROSITE; PS00266; SOMATOTROPIN_1;
PROSITE; PS00338; SOMATOTROPIN_2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, 05-JUL-2004 (TrEMBLrel. 27, Growth hormone 1 variant 2.
-I- SUBCELLULAR LOCATION: Secreted (By similarity) EMBL; AY621647; AAU95549.1; -; Genomic_DNA. InterPro; IPR012351; Cytokine_4_hlx.
                                                                                                                                                                                                                                                        Cercopithecidae;
NCBI_TaxID=61622;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q4VUJ1;
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Mammalia; Eutheria;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                NUCLEOTIDE SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           NCBI_TaxID=9606;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Homo sapiens (Human)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            122
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     131;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                62
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PYGRO PRELIMINARY;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           217 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Conservative
                                                                                                                                                                                                                                                                                        Colobinae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           24946 MW;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Chordata; Craniata; Vertebrata; Euteleostomi; Euarchontoglires; Primates; Catarrhini; Homin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Chordata;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               97.4%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Created)
Last sequence update)
Last annotation updat
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                                                                                                                                                                                                                                                                                        Pygathrix
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Score 662; DB 2;
Pred. No. 4.7e-55;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           72D079DF52BDB51A CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Mismatches
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                                                                                                                                                                                                                                                                                                                                           Vertebrata; Euteleostomi;
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QAVUKO
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Best Local S
Matches 130
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Best Local (
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13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Growth hormone-like protein 3.
Hylobates leucogenys (White-cheeked gibbon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
Hylobatidae; Nomascus.
                                                                                                                                                                                                                                                                                                                                                                                              Hormone.
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                II SUBCELLULAR LOCATION: Secreted (By similarity).

EMBL; AY62137; AAU95540.1; -; Genomic DNA.

InterPro; IPR012351; Cytokine 4 hlx.

InterPro; IPR01400; Somatotropin.

Pfam; PF00103; Hormone 1; 1.

PRINTS; PR00836; SOMATOTROPIN 1; 1.

PROSITE; PS00236; SOMATOTROPIN 2; UNKNOWN 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               KO HYLLE

Q4VUKO HYLLE PRELIMINARY;

Q4VUKO;

13-SEP-2005 (Tremblrel. 3
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Pfam; PI
PRINTS;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              monkeys and hominoids.";
Gene 350:183-192(2005).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.

PubMed=15848116; DOI=10.1016/j.gene.2005.03.003;

Ye C., Li Y., Shi P., Zhang Y.P.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       NCBI_TaxID=61853;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00266; SOMATOTROPIN_1; 1.
PROSITE; PS00338; SOMATOTROPIN_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       "Molecular evolution of growth hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 InterPro; IPR001400; Somatotropin
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              147
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147
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S; PR00836; SOMATOTROPIN.
                                                                                             87
                                                                                                                                            62
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                                                                                                                                                                                                                                                                                                                     Similarity
                                                                                                                                                                                        PPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        IQTLMGRLEDGSP 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FPTIFLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIFKEQKYSFLQNPQTSLSFSESIFT
                                                                                                                          PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGTSDSDVYDLLKDLEEG
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                                                                                             PSNREETQQKSNLELLRISLLLIQSWLEPVRFLRSVFANSLVYGASDSNVYDLLTDLEEG
IQTLMGRLEDGSP
                                            IQTLMGRLEDGSP
                                                                                                                                                                                                                                                                                                                                                                                              217 AA;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    217 AA; 24861 MW; 914D585BDB20AFF5 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Conservative
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97.7%;
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159
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                                                                                                                                                                                                                                                                                           Score 660; DB 2; Length 217; Pred. No. 7.3e-55; Indels 1; Mismatches 2; Indels

    Mismatches

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Pred. No. 5.8e-55;
                                                                                                                                                                                                                                                                                                                                                                                              0C4DD104D007D82C CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PRT;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Indels
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QAVUJA PYGNE
ID QAVUJA P
AC GEOWITH AC
CC GENGRAJYOTO
CC GENGRAJYOTO
CC GENGRAJYOTO
RA NUCLEOTI
RX PUBMedal
RXI TONCHEVE
DC EMBL; AY
DR INTERPRO
DR INTERPRO
DR PRINTS;
DR PRINTS;
DR PROSITE;
Q4VUJ3
ID UJ3
ID UJ3
ID UJ3
ID UJ3
ID IJ3
ID IJ4
ID IJ4
ID IJ5
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Best Local S
Matches 129
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    monkeys and hominoids.";

Gene 350:183-192(2005).

-i- SUBCELIULAR LOCATION: Secreted (By si
EMBL; AY621643; AAU95546.1; -; Genomic_DN
InterPro; IPR012351; Cyrokine 4 hlx.
InterPro; IPR0101400; Somatotropin.
Pfam; PF00103; Hormone_1.1.
Pfam; PF00103; HORMONE.
PROSITE; PR00836; SOMATOTROPIN_1; 1.
PROSITE; PS00338; SOMATOTROPIN_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       QAVUJ4 PYGNE PRELIMINARY; PRT; 217 AA.
QAVUJ4;
13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Growth hormone-like protein 2.
Growth hormone-like protein 2.
Pygathrix nemaeus (Dove langur) (Douc langur).
Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleos Mammalia, Eutheria; Euarchontoglires; Primates; Catarrhini;
Cercopithecidae; Colobinae; Pygathrix.
                                                                                                                                                                                                                                                                                                                                                                                 13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Growth hormone-like protein 4.
Pygathrix nemaeus (Dove langur) (Douc langur).
Enkaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleon Mammalla; Eutheria; Euarchontoglires; Primates; Catarrhini;
Cercopithecidae; Colobinae; Pygathrix.
NCBI TaxID=54133;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Hormone.
SEQUENCE
                        monkeys and hominoids.";
Gene 350:183-192(2005).
-!- SUBCELLULAR LOCATION: Secreted (By similarity)
EMBL; AY621645; AAU95547.1; -; Genomic_DNA.
InterPro; IPR012351; Cytokine_4 hlx.
InterPro; IPR01400; Somatotropin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               73 PYGNE
Q4VUJ3 PYGNE PRELIMINARY;
Q4VUJ3;
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"Molecular evolution of
                                                                                                                                                                                                                       Ye C., Li Y., Shi P., Zhang Y.I
"Molecular evolution of growth
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lar evolution of growth hormone gene fami
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[13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
13-SEP-2005 (TrEMBLrel. 31, Last sequence 
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SEQUENCE
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"Molecular evolution of growth hormone
monkeys and hominoids.";
Gene 350:183-192(2005).
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Q4VUK1_HYLLE PRELIMINARY;
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Ye C., Li Y., Shi P., Zhang Y.P.;
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PROSITE; PS00338; SOMATOTROPIN_2; UNKNOWN_1.
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Pred. No. 1.8e-54
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  6A5C124096E666DF CRC64;
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Best Local (
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01-OCT-1993 (
01-OCT-1994 (
10-MAY-2005 (
                                                                                                                                                                                       CHAIN
DISULFID
DISULFID
CONFLICT
CONFLICT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PROTEIN SEQUENCE OF 27-217.

MEDIJNS=86199460; PubMed=3080959;
Li C.H., Chung D., Lahm H.W., Stein S.,

"The primary structure of monkey pituitary growth hormone.";

"The primary structure of monkey pituitary growth hormone.";

Arch. Biochem. Biophys. 245:287-291(1986).

-I- FUNCTION: Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblasts. It also stimulates amino acid uptake and protein synthesis in muscle and other tissues.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                01-OCT-1993 (Rel. 27, Created)
01-OCT-1994 (Rel. 30, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation update)
Somatotropin precursor (Growth hormone) (Growth hormone)
                                                                                                                                                                                                                                                              Direct
SIGNAL
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         MEDLINE=94008724; PubMed=8404617; DOI=10.1210/en.133.4.1744; Golos T.G., Durning M., Fisher J.M., Fowler P.D.; Golos T.G., Durning M., Fisher J.M., Fowler P.D.; Toloning of four growth hormone/form somatomammotropin-related complementary deoxyribonucleic acids differentially expressed during pregnancy in the rhesus monkey placenta."; Endocrinology 133:1744-1752(1993).
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Macaca mulatta (Rhesus macaque).

Bukaryota; Metazoa; Chordata; Craniata; Vertebrata; Buteleo

Mammalia; Butheria; Buarchontoglires; Primates; Catarrhini;

Cercopithecidae; Cercopithecinae; Macaca.
                                                                                                                                                                                                                                                                                                                                                                                            HSSP; P01241; 1AXI.
SMR; P33093; 27-216.
                                                                                                                                                                                                                                                                                                                                                                                                                     EMBL; L16556; AAA18842.1;
PIR; I67410; I67410.
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between the Swi
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                                                                                                                                                                         SEQUENCE
                                                                                                                                                                                                                                                                                                                                                InterPro; IPR012351; Cytokine_4 hlx.
InterPro; IPR001400; Somatotropin.
PANTHER; PTHR11417; Somatotropin; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUCLEOTIDE SEQUENCE.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Name=GH1;
                                                                                                                                                                                                                                                                                        PROSITE; PS00266; SOMATOTROPIN_1; 1.
PROSITE; PS00338; SOMATOTROPIN_2; 1.
                                                                                                                                                                                                                                                                                                                      PRINTS;
                                                                                                                                                                                                                                                                                                                                    Pfam; PF00103; Hormone
                                                                                                                                                                                                                                                                                                                                                                                                                                                                   removed
                                                                                                                                                                                                                                                                                                                                                                                                                                                                            s Swiss-Prot entry is copyright. It is produced through a collaboween the Swiss Institute of Bioinformatics and the EMBL outstate Suropean Bioinformatics Institute. There are no restrictions of as long as its content is in no way modified and this statement
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the somatotropin/prolactin family.
 87
                           62
                                                        27
                                                                                                                                                                                                                                                                       protein
                                                                                                                                                                                                                                                                                                                   PRO0836; SOMATOTROPIN
                                                                                                                               Similarity
                                                                     FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIFT
                           PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
                                                    PPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIPT
                                                                                                                                                                      208
100
179
217
                                                                                                              Conservative
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                                                                                                                                                                                                                                                                          sequencing;
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191
215
100
179
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                                                                                                                             94.9%;
97.0%;
                                                                                                                                                                         MW;
                                                                                                                                                                                                                                                                           Hormone; Pituitary;
                                                                                                                                                                                     Somatotropin.
By similarity.
By similarity.
E -> Q (in Ref.
N -> D (in Ref.
                                                                                                                             Score 645; DB 1
Pred. No. 2e-53;
                                                                                                                                                                                                                                                                                                                                                                                                                                       mRNA.
                                                                                                                                                                     -> Q (in Ref. 2).
-> D (in Ref. 2).
2C5180341EEC46D0
                                                                                                                 Mismatches
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                                                                                                                                              217;
a collaboration
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122

IQTLMGRLEDGS

133

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RESULT 13

Q8WNEO_ATEGE
D8WNEO;
ATEGE
TO Q8WNEO;
ATEGE PRELIMINARY;
AC Q8WNEO;
DT 01-MAR-2002 (TrEMBLrel. 20,
DT 01-MAR-2004 (TrEMBLrel. 20,
DT 01-MAR-2004 (TrEMBLrel. 26,
DE Growth hormone.
GN Name=GH-N;
OS Ateles geoffroyi (Black-ham)
OC Eukaryota; Metazoa; Chordat;
QC Mammalia; Eutheria; Euarcho)
OC Atelinae; Ateles.
OX NCBI TaxID=9509;
RN [1]
RP NUCLEOTIDE SEQUENCE.
RA Revol A., Esquivel D., Sant
RL Submitted (APR-2001) to the
CC -i- SUBCELLULAR LOCATION: S
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Best Local Sim
Matches 125;
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"Molecular evolution of growth hormone ge
monkeys and hominoids.";

Gene 350:183-192(2005).

-!- SUBCELIULAR LOCATION: Secreted (By 81
EMBL; AY621641; AAU95544.1; -; Genomic DN
InterPro; IPR012351; Cytokine 4 hix.
InterPro; IPR01400; Somatttropin.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Q4VUJ6; PTLLE PRELIMINARY; PRT; Z17 AA.
Q4VUJ6;
Q4VUJ6;
13-SEP-2005 (TrEMBLrel. 31, Created)
13-SEP-2005 (TrEMBLrel. 31, Last sequence update)
13-SEP-2005 (TrEMBLrel. 31, Last annotation update)
Growth hormone-like protein 7.
Hylobates leucogenys (White-cheeked gibbon).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
                                                                                                          Ateles geoffroyi (Black-handed spider monkey).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi
Mammalia; Eutheria; Euarchontoglires; Primates; Platyrrhini; Ceb
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              PROSITE; PS00266; SOMATOTROPIN_1; 1.
PROSITE; PS00338; SOMATOTROPIN_2; UNKNOWN_1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Pfam; PF00103; Hormone 1; 1. PRINTS; PR00836; SOMATOTROPIN.
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PubMed=15848116; DOI=10.1016/j.gene.2005.03.
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NCBI_TaxID=61853;
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    Santiago D., Barrera-Saldana H.; the EMBL/GenBank/DDBJ databases DN: Secreted (By similarity).
                                                                                                                                                                                 Created)
Last sequence update)
Last annotation update)
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RESULT 14
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Mammalia; Eutheria; E
Callitrichidae; Calli
NCBI_TaxID=9483;
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28-FEB-2003
10-MAY-2005
                                                                                                                                                                                                                                                                                                                                                                                                 Wallis O.C., Wallis M.;
"Cloning and characterisation of a putative growth hormone encoding gene from the marmoset (Callithrix jacchus).";
Submitted (AUG-2000) to the EMBL/GenBank/DDBJ databases.

-!- FUNCTION: Plays an important role in growth control. Its major role in stimulating body growth is to stimulate the liver and other tissues to secrete IGF-1. It stimulates both the differentiation and proliferation of myoblaste. It also stimulates amino acid uptake and protein synthesis in muscle and other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Hormone.
SEQUENCE
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Callithrix jacchus (Common marmoset).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
Mammalia; Eutheria; Euarchontoglires; Primates; Platyrrhini;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              SMR; Q8WNEO; 27-216.
GO; GO:0005576; C:extracellular reging GO; GO:00179; F:hormone activity; InterPro; IPR011351; Cytokine 4 hlx. InterPro; IPR001400; Somatotropin.
InterPro; IPR012351;
InterPro; IPR001400;
PANTHER; PTHR11417; S
                                                                       EMBL; AJ297563; CACO
HSSP; P01241; 1A22.
SMR; Q9GMB3; 27-216.
                                                                                                                                                                                                 This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss Institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             NUCLEOTIDE SEQUENCE.
Wallis O.C., Wallis M.;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Name=GH1
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Q9GMB3;
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           EMBL; AF374234; AAL72286.1; -; HSSP; P01241; 1A22.
                                                                                                                                                                            removed
                                                                                                                                                                                                                                                                                                                            tissues (By similarity).
SUBCELLULAR LOCATION: Secreted.
SIMILARITY: Belongs to the somatotropin/prolactin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    (Rel. 41, Created)
(Rel. 41, Last sequence up
(Rel. 47, Last annotation
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Conservative
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            STANDARD;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Callithrix.
                                                                                                                          CAC03481.1;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       24894 MW; 425829FF41EEAAE6 CRC64;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       91.8%;
91.0%;
                       Cytokine 4 hlx.
Somatotropin.
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Score 624; DB 2
Pred. No. 2e-51;
                                                                                                                       Genomic_DNA.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  hormone)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Genomic_DNA.
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Somatotropin;

PF00103; Hormone

j=4

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SOFFITARRE
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Best Local S
Matches 120
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DISULFID
DISULFID
SEQUENCE
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Hormone;
               EMBL; AF374233; AAL72285.1; -; Genom.
HSSP; P01241; 1A22.
SMR; P58757; 27-216.
InterPro; IPR012351; Cytokine_4 hlx.
InterPro; IPR013351; Cytokine_4 hlx.
PANTHER; PTFR11417; Somatotropin; 1.
PANTHER; PFP01013; Hormone_1; 1.
                                                                                                                                                                                                                                                                                 NUCLEOTIDE SEQUENCE.

Revol A. Bequivel D., Santiago D., Barrera-Saldana H.;

"Independent duplication of the growth hormone gene in three

"Independent duplication of the growth hormone gene in three

Anthropoidean lineages.";

Submitted (APR-2001) to the EMBL/GenBank/DDBJ databases.

-!- FUNCTION: Plays an important role in growth control. Its major

role in stimulating body growth is to stimulate the liver and

other tissues to secrete IGF-1. It stimulates both the

differentiation and proliferation of myoblasts. It also stimulates

amino acid uptake and protein synthesis in muscle and other
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TOM2_PANTR STANDARD; PRT; 217 AA P58757; PEB-2003 (Rel. 41, Created)
28-FEB-2003 (Rel. 41, Last sequence update)
10-MAY-2005 (Rel. 47, Last annotation updat)
Growth hormone variant precursor (GH-V) (Pl. hormone) (Growth hormone 2).
                                                                                                                                                This Swiss-Prot entry is copyright. It is produced through a collaboration between the Swiss institute of Bioinformatics and the EMBL outstation - the European Bioinformatics Institute. There are no restrictions on its use as long as its content is in no way modified and this statement is not
                                                                                                                                                                                                                  tissues.
-i- SUBCELLULAR LOCATION: Secreted.
-i- TISSUE SPECIFICITY: Expressed in the placenta.
-i- SIMILARITY: Belongs to the somatotropin/prolactin family.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 PANTR
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PROSITE; PS00266; SOMATOTROPIN_1; 1. PROSITE; PS00338; SOMATOTROPIN_2; 1.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Pan troglodytes (Chimpanzee).
Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
                                                                                                                                     removed.
                                                                                                                                                                                                                                                                                                                                                                                                                                                   NCBI_TaxID=9598;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Mammalia; Eutheria; Euarchontoglires;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Name=GH2;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  PRINTS; PRO0836; SOMATOTROPIN
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                PASKKETQQKSNLELLRWSLLLIQSWFBFVQFLRSVFANSLLYGVSDSDVYBYLKDLEBG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FPTIPLSRLLDNAMLRAHRLHQLAFDTYQEFBEAYIPKEQKYSFLQNPQTSLCFSESIPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT
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26
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Somatotropin.
By similarity.
By similarity.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Score 621; DB 1;
Pred. No. 3.9e-51;
                                                                                                    Genomic_DNA
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        (GH-V) (Placenta-specific growth
                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Primates; Catarrhini; Hominidae;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      update)
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Length 217;
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PR00836;

SOMATOTROPIN

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Best Local Simi
Matches 123;
                                                                                                                                                                                       CARBOHYD
DISULFID
DISULFID
                                                                                                                                                                                                                                   Glycoprotein;
SIGNAL
                                                                                                                                                                              SEQUENCE
                                                                                                                                                                                                                          CHAIN
                                                                                                                                                                                                                                                        PROSITE; PS00266; SOMATOTROPIN_1; PROSITE; PS00338; SOMATOTROPIN_2;
147
                     122
                                           87
                                                                62
                                                                                      27
                                                                                                           N
                                                                                                                                             Similarity
                                                           PSNRBETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
                                                                                                     FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT
           IQTLMGRLEDGSP 134
                                           PSNRVKTQQKSNLELLRISLLLIQSWLEPVQLLRSVFANSLVYGASDSNVYRHLKDLEEG
IQTLMWRLEDGSP 159
                                                                                       PPTIPLSRLFDNAMLRAHRLYQLAYDTYQEFEEAYILKEQKYSFLQNPQTSLCFSESIPT
                                                                                                                                                                              208
217
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27
166
79
                                                                                                                                   Conservative
                                                                                                                                                                          Hormone, Placenta; Signal.

1 26 By similarity.
27 217 Growth hormone variant.
66 166 N-linked (GlcNAc. . .) (Potential).
79 191 By similarity.
108 215 By similarity.
17 AA; 24991 MW; 1592A429075677DB CRC64;
                                                                                                                                           89.9%;
92.5%;
                                                                                                                                 3
                                                                                                                                Score 611; DB 1; L
Pred. No. 3.5e-50;
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                                                                                                                                    Indels
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Search o time completed: May ne : 229 secs 11, 2006, 12:01:35

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Result
No.
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Perfect score:
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                            Score
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          d. No. is the number of results predicted by chance to have a
re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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seq length: 2000000000
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Match
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680
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i /cgn2_6/ptodata/1/iaa/5_COMB.pep:*

c/cgn2_6/ptodata/1/iaa/6_COMB.pep:*

cgn2_6/ptodata/1/iaa/H_COMB.pep:*

cgn2_6/ptodata/1/iaa/PCTUS_COMB.pep:*

cgn2_6/ptodata/1/iaa/RE_COMB.pep:*

cgn2_6/ptodata/1/iaa/RE_COMB.pep:*
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                                   MFPTIPLSRLFDNAMLRAHR.....LKDLEEGIQTLMGRLEDGSP 134
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     GenCore version 5.1.8
Copyright (c) 1993 - 2006 Biocceleration Ltd.
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     DВ
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                  US-08-093-383-1
US-09-571-024B-14
US-09-284-878-5
US-09-462-941-1
US-09-54-451-1
US-08-459-006-4
US-08-459-02B-10
US-08-784-582-71
US-09-284-878-1
US-09-284-878-1
US-09-284-878-1
US-09-284-878-1
US-09-284-878-1
US-09-284-878-1
US-09-286-298-2
US-09-424-628-2
US-09-424-628-2
US-09-424-638-7
US-09-424-638-7
US-09-424-638-7
US-09-424-638-7
US-09-424-638-7
US-09-465-461-1
US-09-465-461-1
US-08-469-486-51
US-08-469-486-51
US-08-469-486-51
US-08-41-657-4
US-08-41-657-4
US-09-411-657-4
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Sequence 1, Appli Sequence 5, Appli Sequence 1, Appli Sequence 1, Appli Sequence 4, Appli Sequence 4, Appli Sequence 10, Appli Sequence 10, Appli Sequence 10, Appli Sequence 11, Appli Sequence 11, Appli Sequence 11, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 2, Appli Sequence 66, Appli Sequence 71, Appli Sequence 71, Appli Sequence 7, Appli Sequence 7, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 1, Appli Sequence 51, Appli Sequence 51, Appli Sequence 51, Appli Sequence 51, Appli Sequence 4, Appli Sequence 9, Appli Sequence 37, Appli
                                                                                                                                                                                                                                                                                                                                                                                                                                                              Description
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45	44	43	42	41	40	39	38	37	36	35	34	33	32	<u>3</u> 1	30	29	28
633	633	633	633	637.5	637.5	637.5	637.5	637.5	642	644	651	655	655	657	657	660	663
93.1	93.1	93.1	93.1	93.8			93.8		94.4	94.7	95.7	96.3	96.3	96.6		97.1	97.5
198	198	198	198	242	242	242	242	242	191	191	191	191	191	191	191	191	401
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US-09-949-016-8653	US-09-949-016-8652	US-09-949-016-8651	US-09-949-016-8650	US-09-949-016-8664	US-09-949-016-8663	US-09-949-016-8662	US-09-949-016-8661	US-09-949-016-8660	US-09-571-024B-3	US-09-571-024B-6	US-09-571-024B-5	US-08-800-215C-20	US-08-800-215C-16	US-09-571-024B-4	US-08-800-215C-18	US-09-554-451-3	US-09-420-819-36
Sequence 8653	Sequence 8652	Sequence 8651	Sequence 8650	Sequence 8664	Sequence 8663	Sequence 8662	Sequence 8661	Sequence 8660	Sequence 3,	Sequence 6,	Sequence 5,	Sequence 20,	Sequence 16,	Sequence 4,	Sequence 18,	Sequence 3,	Sequence 36,
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                                                                                                                                                                                                                          US-09-284-878-5
                                                                                                                                                                                                                                             RESULT 3
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT: Filikov, Anton
APPLICANT: Pilikov, Anton
APPLICANT: Dahlyat, Bassil I.
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND PRI
FILE REFERENCE: A-6747-1/RFT/RMS/RMK
CURRENT APPLICATION NUMBER: US/09/571,024B
CURRENT FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: US 60/133,784
PRIOR FILING DATE: 1999-05-12
NUMBER OF SEQ ID NOS: 14
SOFTWARE: Patentin version 3.2
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  US-09-571-024B-14
                                                                                                                                                                     Sequence 5, Application US/09284878 Patent No. 6342375 GENERAL INFORMATION:
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GENERAL INFORMATION:
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Best Local :
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APPLICANT: Olazaran, Martha Guerrero
APPLICANT: Saldana, Hugo Barrera
APPLICANT: Salvado, Jose Maria Viader
APPLICANT: Salvado, Jose Maria Viader
TITLE OF INVENTION: Genetically Modified Methylotrophic P. pastoris Yeast for the
TITLE OF INVENTION: Production and Secretion of the Human Growth Hormone
FILE REFERENCE: 1829.001000
CURRENT ENCINTION NUMBER: 180/09/284,878
CURRENT FILING DATE: 1999-07-21
PRIOR APPLICATION NUMBER: PCT/MX97/00033
PRIOR FILING DATE: 1997-10-24
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
ORGANISM: Homo sapiens
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99.2%;
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Pred. No. 8.8e-72;
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GENERAL INFORMATION:

GENERAL INFORMATION:

APPLICANT: Cox III, George N

APPLICANT: Bolder Biotechnology, Inc.

ITILE OF INVENTION: Derivatives of Growth Hormone and Related Prot

FILE REFERENCE: 4152-1-PUS

CURRENT APPLICATION NUMBER: US/09/462,941

CURRENT FILING DATE: 2000-01-14

FRIOR APPLICATION NUMBER: 60/052,516

PRIOR FILING DATE: 1997-07-14

NUMBER OF SEQ ID NOS: 41

SOPTWARE: Patentin Ver. 2.0

SEQ ID NO 1

LENGTH: 191
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; SOFTWARE: Patentin Ver.
; SEQ ID NO 5
; LENGTH: 191
; TYPE: PRT
; ORGANISM: Homo sapiens
US-09-284-878-5
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US-09-462-941-1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ; ORGANISM: Homo sapiens US-09-462-941-1
                                                                                                                                                     US-09-554-451-1
                                                                                                                                                                        RESULT 5
                                                                                                             Sequence 1, Application US/09554451 Patent No. 6680207
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Best Local Similarity
Matches 132; Conserv
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                                                                                             GENERAL INFORMATION:
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Local Similarity 99.2%;
nes 132; Conservative
Anthony ATKINSON
TITLE OF INVENTION: Detection of Molecules in Samples NUMBER OF SEQUENCES: 9
CORRESPONDENCE ADDRESS:
                                                                                                                                                                                                                                                 122 IQTLMGRLEDGSP 134
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Pred. No. 3.4e-71;
0; Mismatches 1
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Pred. No. 3.4e-71;
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TOPOLOGY: linear SEQUENCE DESCRIPTION: SEQ ID NO: 1: US-09-554-451-1
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Best Local Similarity
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APPLICANT: Daley, Michael J.
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FILING DATE: No. 6680207ember 16, 1998
APPLICATION NUMBER: GB 9723955.2
FILING DATE: No. 6680207ember 14, 1997
INFORMATION FOR SEQ ID NO: 1:
SEQUENCE CHARACTERISTICS:
                                                                                                                STREET: 19.
STREET: 19.
CITY: Stamford
STATE: Connecticut
STATE: U.S.A.
              ZIP: 06904-0060
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0,
                                                                                                                                                                                                                               APPLICANT: Buckwalter, Brian L.
APPLICANT: Cady, Susan M.
APPLICANT: Shieh, Hong-Ming
APPLICANT: Bohlen, Peter
APPLICANT: Seddon, Andrew P.
TITLE OF INVENTION: Stabilization Of Somatotropins And Other
TITLE OF INVENTION: Proteins By Modification Of Cysteine Residues
NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: MS WOO'D
CURRENT APPLICATION NUMBER: US/09/554,451
FILING DATE: 15-MAY-2000
CLASSIFICATION: <Unknown>
PRIOR APPLICATION DATA:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             ADDRESSEE: Pillsbury Winthrop, L.L.P. STREET: 1100 New York Ave., N.W. CITY: Washington
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 STATE: D.C.
                                                                                                                                                                                             E: Dr. Estelle J. Tsevdos
1937 West Main Street, P.O. Box 60
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           20005
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                  Version #1.
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TELEPAX: 203-321-2971
TELEX: 203-710-474-4059
INFORMATION FOR SEQ ID NO: 4:
SEQUENCE CHARACTERISTICS:
LENGTH: 194 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       Patent No.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Sequence 4, Application US/08459906
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Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 132; Conservative
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy disk
COMPUTER: IMP PC compatible
COMPUTER: PC-DOS/MS-DOS
SOFTWARE: PATENTIA Release #1.0, Vers
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/459,906
FILING DATE: 02-UN-1995
CLASSIET/CATION: 514
ATTORNEY/AGENT INFORMATION:
NAME: Webster, Darryl L.
REGISTRATION UNMBER: 34,276
REFERENCE/DOCKET NUMBER: 31,278-03
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  GENERAL INFORMATION:
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FILING DATE: 06-FEB-1995
CLASSIFICATION: 514
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 07/
FILING DATE: 25-SEP-1991
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
APPLICANT:
APPLICANT:
                                                                                                                                                                                                                                                                                                                                                NUMBER OF SEQUENCES: 11
CORRESPONDENCE ADDRESS:
ANDERESSEE: American Cyanamid Company
STREET: One Cyanamid Plaza
                                                                                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Bohlen, Peter P. AppLICANT: Seddon, Andrew P. TITLE OF INVENTION: Stabilization of Somatotropins and Other TITLE OF INVENTION: Proteins by Modification of Cysteine Residues
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      TELECOMMUNICATION INFORMATION: TELEPHONE: 203-321-2756
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                                                   CITY: Wayne
STATE: New Jersey
COUNTRY: U.S.A.
ZIP: 07470-8426
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          NAME: Tsevdos, Estelle J.
REGISTRATION NUMBER: 31,145
REFERENCE/DOCKET NUMBER: 31,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   124
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          122 IQTLMGRLEDGSP 134
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amino acid
OGY: linear
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Shieh, Hong-Ming
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Buckwalter, Brian L.
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TELECOMMUNICATION INFORMATION:

201-831-3247

TELEPHONE:

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TOPOLOGY:
US-08-589-028-10
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                                                    TELEPHONE: (512) 418-3000
TELEPAX: (512) 474-7577
INFORMATION FOR SEQ ID NO: 10:
SEQUENCE CHARACTERISTICS:
LENGTH: 217 amino acids
TYPE: amino acid
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Sequence 10, Ap
Patent No. 6087
                                                                                                                                                                                                                                                      COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Ver
CURRENT APPLICATION DATA:
APPLICATION NUMBER: US/08/589,028
FILING DATE: Concurrently Herewith
CLASSIFFICATION: 435
ATTORNEY/ACCUM.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            Query Match 98.5%;
Best Local Similarity 99.2%;
Matches 132; Conservative
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INFORMATION FOR SEQ ID NO: 4:
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APPLICANT:
APPLICANT:
                                                                                                                                                                    ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 47,642
REFERENCE/DOCKET NUMBER: UTSD:426\HYL
TELECOMMUNICATION INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           SEQUENCE CHARACTERISTICS:
LENGTH: 194 amino acids
TYPE: amino acid
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MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatil
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                ADDRESSEE: Arnold, W
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: Recombinant Expression of Proteins From
TITLE OF INVENTION: Secretory Cell Lines
NUMBER OF SEQUENCES: 50
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        CITY: Houston
STATE: TX
                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              STREET:
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                                    STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           124 IQTLMGRLEDGSP 136
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P. O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                           USA
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Halban, Philippe
No. 6087129mington, Karl D.
                    linear
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                                                                                                                                                                                                                                                                                                                                                     Version #1.30
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TOPOLOGY:
US-08-784-582-10
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Best Local Similarity
Matches 132; Conserv
Query Match
Best Local Similarity
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               Patent No.
                                                                                                                                                                                                                          PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 60/028,427
FILING DATE: 15-OCT-1996
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08/589,028
FILING DATE: 19-JAN-1996
ATTORNEY/AGENT INFORMATION:
NAME: Highlander, Steven L.
REGISTRATION NUMBER: 37,642
REFERENCE/DOCKET NUMBER: UTSD:514
                                                                                                                                                        TELEFAX: 512/474-7577
INFORMATION FOR SEQ ID NO: 10:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 GENERAL INFORMATION:
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APPLICANT:
                                                                                                                                                                                                                                                                                                                                                                                                                                                    MEDIUM TYPE: Floppy disk
COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: Patentin Release #1.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICANT:
                                                                                                                      SEQUENCE CHARACTERISTICS:
LENGTH: 217 amino acids
                                                                                                                                                                                       TELECOMMUNICATION INFORMATION: TELEPHONE: 512/418-3000
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           ZIP: 77210
COMPUTER READABLE FORM:
MEDIUM TYPE: Floppy
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   NUMBER OF SEQUENCES: 7
CORRESPONDENCE ADDRESS:
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                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/784,582 FILING DATE: Concurrently Herewith CLASSIFICATION: 435
                                                                                   STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  CITY: Houston STATE: Texas
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 ADDRESSEE: Arnold, Wh
STREET: P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                COUNTRY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         147
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               27 FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIPT
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    2 FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT
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6110707
                                                                                                     amino acid
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                Texas
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Thigpen, Anice E.
Quaade, Christian
Kruse, Fred
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Newgard, Christopher B.
Halban, Philippe A.
No. 6110707mington, Karl D.
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                                                                     linear
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    Dennis
RECOMBINANT EXPRESSION OF PROTEINS FROM
SECRETORY CELL LINES
98.5%;
99.2%;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   White & Durkee
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Pred. No. 4.1e-71;
 Score 670; DB 2;
Pred. No. 4.1e-71;
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Mismatches
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                  Length 217
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US-08-785-271-10
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                                                                                              Query Match
Best Local Similarity
Matches 132; Conserv
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Patent No. 619417
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Matches
                                                                                                                                                                                                                               TELEPAX: 512/474-7577 INFORMATION FOR SEQ ID NO: SEQUENCE CHARACTERISTICS: LENGTH: 217 amino acids
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                              CLASSIFICATION: 435
PRIOR APPLICATION DATA:
APPLICATION NUMBER: US 08,
FILING DATE: 19-JAN-1996
ATTORNEY/AGENT INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 SOFTWARE: PatentIn Rel
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                                                                                                                                                                                                                                                                                                 TELEPHONE: 512/418-3000
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                   APPLICATION NUMBER: US/08/785,271 FILING DATE: Concurrently Herewith
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COUNTRY: USA
ZIP: 77210
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                                                                                                                                                                                                 STRANDEDNESS:
                                                                                                                                                                                                                                                                                                                                    REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                     NAME: Highlander, Steven L. REGISTRATION NUMBER: 37,642
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        MEDIUM TYPE:
                                                                                                                                                                                 TOPOLOGY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         ADDRESSEE:
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62 PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG 121
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Houston
                                                                                                                                                                                                                  amino acid
                               FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIPT 86
                                                       FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEBAYIPKBQKYSFLQNPQTSLSFSESIPT 61
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P.O. Box 4433
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Quaade, Chri
Kruse, Fred
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Thigpen, American
                                                                                                 Conservative
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Halban, Philippe A.
No. 6194176mington, Karl D.
Clark, Samuel A.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      PatentIn Release #1.0, Version #1.30
                                                                                                                                                                                 linear
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                                                                                                               98.5%;
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                                                                                                                                                                                                                                                                                                                                                                                                                  US 08/589,028
                                                                                                                                                                                                                                                                                                                                                  37,642
                                                                                            Score 670; DB 2; Length 217; Pred. No. 4.1e-71; O; Mismatches 1; Indels
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                         Matches 132;
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                                                  Query Match
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                                                                                                                                                                                                                                                                                                                                                                                                                                                   FEATURE:
NAME/KEY:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  COMPUTER: IBM PC compatible
OPERATING SYSTEM: PC-DOS/MS-DOS
SOFTWARE: PATENTIN Release #11.0, Version #1.30
CURRENT APPLICATION DATA:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       COMPUTER READABLE FORM: MEDIUM TYPE: Floppy disk
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    CORRESPONDENCE ADDRESS:
ADDRESSEE: DNAX Research Institute
                                                                                                                                              FEATURE:
                                                                                                                                                                                                                             FEATURE
                                                                                                                                                                                                                                                                           TOPOLOGY: linear MOLECULE TYPE: protein
                                                                                                                                                                                                                                                                                                                                              SEQUENCE CHARACTERISTICS
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: MUTATIONAL VARIANTS OF MAMMLIAN PROTEINS NUMBER OF SEQUENCES: 11
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    APPLICANT:
                                                                                         NAME/KEY: Peptide LOCATION: 192..210 OTHER INFORMATION: OTHER INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                APPLICANT:
                                                                                                                                                                                                                                       NAME/KEY:
LOCATION:
                                       Local
                                                                                                                                                                                                                                                                                                                                                                                                                 NAME: Ching, Edwin P. REGISTRATION NUMBER: 34 REFERENCE/DOCKET NUMBER:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          APPLICATION NUMBER: FILING DATE: 05-DEC
                                                                                                                                                                                                                                                                                                       STRANDEDNESS:
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                                                                                                                                                                                                               NAME/KEY:
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                                                                                                                                                                                                                                                                                                                                   ENGTH:
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2 FPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIPT 61
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                                       Similarity
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                                                                                                                                                                                                                                                                                                                     amino acid
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                                                                                                                                                                                                                                                                                                                                   217 amino acids
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                          Conservative
                                                                                                                                                                                                                                                                                                                                                                             415-496-1200
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                                                                                                                                                                                                                                        Peptide 32..53
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                                                                                                                                                         Peptide
133..153
                                                                                                                                                                                                Peptide 94..115
                                                                                                                                                                                                                                                                                           ss: single
linear
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                                     98.5%;
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                                                                                         /note= "The peptides above
depicted in Figure 1"
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                         0; Mismatches
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                                       Score 670; DB 2;
Pred. No. 4.1e-71;
                                               Length 217;
                         Indels
                         0,
                         Gaps
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US-09-929-918-9
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US-09-284-878-1
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NUMBER OF SEQ ID NOS: 11
SOPTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 9
LENGTH: 217
TYPE: PRT
                                                                                                                                                                                                                           GENERAL INFORMATION:
APPLICANT: Kordyum, Vitaliy A.
APPLICANT: Chernykh, Svitlana I.
APPLICANT: Slavchenko, Iryna Yu.
APPLICANT: Vozianov, Olekaandr
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     SOFTWARE: PatentIn Ver. 2.1
SEQ ID NO 1
LENGTH: 217
                                                                                                                                                                                                                                                                                                                          Sequence 9, Application US/09929918 Patent No. 6773899
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APPLICANT: Saldana, Hugo Barrera
APPLICANT: Salvado, Jose Maria Viader
TITLE OF INVENTION: Genetically Modified Methylotrophic P. pastoris Yeast for the
TITLE OF INVENTION: Production and Secretion of the Human Growth Hormone
FILE REFERENCE: 1829.001000
CURRENT APPLICATION NUMBER: US/09/284,878
CURRENT APPLICATION NUMBER: US/09/284,878
CURRENT FILING DATE: 1999-07-21
PRIOR APPLICATION NUMBER: PCT/MX97/00033
PRIOR FILING DATE: 1997-10-24
NUMBER OF SEQ ID NOS: 9
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 TYPE: PRT
ORGANISM: Homo sapiens
-09-284-878-1
                                                                                          CURRENT APPLICATION NUMBER: US/09/929,918
CURRENT FILING DATE: 2001-08-15
PRIOR APPLICATION NUMBER: 09/318,288
PRIOR FILING DATE: 1999-05-25
                                                                                                                                                                        TITLE OF INVENTION: PHAGE-DEPENDENT SUPER PRODUCTION OF TITLE OF INVENTION: BIOLOGICALLY ACTIVE PROTEIN AND PEPTIDES FILE REFERENCE: PHAGE.006A
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          Local
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US-09-424-620B-25
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US-09-571-024B-1
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US-09-929-918-9
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    US-09-571-024B-1
               Sequence 25, Application US/09424620B
Patent No. 6391585
GENERAL INFORMATION:
APPLICANT: HANIL SYNTHETIC FIBS
JANG. Ki-Ryong
MOON, Jae-Woong
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  APPLICANT: Filikov, Anton
APPLICANT: Dahiyat, Bassil I.
APPLICANT: Dahiyat, Bassil I.
APPLICANT: Dahiyat, Bassil I.
TITLE OF INVENTION: NOVEL NUCLEIC ACIDS AND PROTEINS WITH GROWTH HORMONE ACTIVITY
FILE REFERENCE: A-67477-1/RFT/RMS/RMK
CURRENT FILING DATE: 2000-05-12
CURRENT FILING DATE: 2000-05-12
PRIOR APPLICATION NUMBER: US 60/133,784
PRIOR APPLICATION NUMBER: US 60/133,784
PRIOR FILING DATE: 1999-05-12
NUMBER OF SEQ ID NOS: 14
SOPTWARE: PACENTIN VERSION 3.2
SEQ ID NO 1
LFRICTH. 217
                                                                                                                                                                                                                                                                                                                                                                                                                                         Query Match
Best Local Similarity
Matches 132; Conserv
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Matches 132; Conserv
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NAME/KEY: SIGNAL
LOCATION: (1)..(26)
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ORGANISM: Homo sapiens
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Pred. No. 4.1e-71;
0; Mismatches 1
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Pred. No. 4.1e-71;
0; Mismatches 1
                                                           FIBER
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STREET: Sull-
STREET: Sull-
STREET: Sull-
STREET: New Haven
STATE: Connecticut
COUNTRY: U.S.A.
ZIP: 06510-2802
COMPUTER READABLE FORM:
MEDIUM TYPE: Diskette, 3.5 inch, 1.44 Mb storage
COMPUTER: IBM
OPERATING SYSTEM: WINDOWS 95/98
SOFTWARE: MS WORD
CURRENT APPLICATION NUMBER: US/09/424,620B
FILING DATE: 24-No. 6391585-1999
INFORMATION FOR SEQ ID NO: 25:
SEQUENCE CHARACTERISTICS:
LENGTH: 241 amino acids
TYPE: amino acid
TYPE: amino acid
TYPE: mino acid
TYPE: pROTEIN

TYPE: PROTEIN

TYPE: SEQ ID NO: 25:
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ADDRESSEE: BACHMAN & LAPOINTE, P.C.
STREET: Suite 1201, 900 Chapel Street
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          TITLE OF INVENTION: Process for preparing recombinant proteins using highly efficient expression vector from Sacharomyces cerevisiae NUMBER OF SEQUENCES: 25
                                                                122 IQTLMGRLEDGSP 134
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171 IQTLMGRLEDGSP 183
                                                                                                                              YANG, Doo-Suk
LEE, Jee-Won
SEONG, Baik-Lin
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Result
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Maximum DB
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and is
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re greater than or equal to the score of the result being printed,
is derived by analysis of the total score distribution.
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     length: 0
length: 2000000000
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1: /cgn2_6/ptodata/1/pubpaa/US07_PUBCOMB.pep:*

2: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

3: /cgn2_6/ptodata/1/pubpaa/US08_PUBCOMB.pep:*

4: /cgn2_6/ptodata/1/pubpaa/US10A_PUBCOMB.pep:*

5: /cgn2_6/ptodata/1/pubpaa/US11_PUBCOMB.pep:*
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Maximum Match 100%
Listing first 45 summaries
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                US-09-819-094-24
US-10-621-693-8
US-09-819-094-23
US-10-621-693-8
US-10-621-693-8
US-10-621-693-72
US-10-621-693-72
US-10-908-400A-95
US-10-908-400A-95
US-10-908-400A-97
US-10-908-400A-97
US-10-908-400A-97
US-10-908-400A-100
US-10-908-400A-101
US-10-908-400A-101
US-10-908-400A-101
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US-10-908-400A-102
US-10-908-400A-103
US-10-908-400A-103
US-10-908-400A-103
US-10-908-400A-103
US-10-621-693-35
US-10-621-693-35
US-10-621-693-55
US-10-621-693-55
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Sequence 24, Appl
Sequence 18, Appl
Sequence 18, Appl
Sequence 7, Appl
Sequence 7, Appl
Sequence 72, Appl
Sequence 72, Appl
Sequence 72, Appl
Sequence 95, Appl
Sequence 95, Appl
Sequence 97, Appl
Sequence 100, App
Sequence 101, App
Sequence 102, Appl
Sequence 103, Appl
Sequence 104, Appl
Sequence 51, Appl
Sequence 51, Appl
Sequence 53, Appl
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Publication No. US20030186382A1
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672 98.8 800 5 US-10-775-204-1303 670 98.5 191 4 US-10-153-207-1 670 98.5 191 4 US-10-400-377-1 670 98.5 191 4 US-10-298-148-1 670 98.5 191 4 US-10-298-148-1 670 98.5 191 4 US-10-621-693-2 670 98.5 191 4 US-10-621-693-2 670 98.5 191 4 US-10-621-693-2 670 98.5 191 4 US-10-621-693-80 670 98.5 191 4 US-10-621-693-84 670 98.5 191 4 US-10-621-693-84 670 98.5 191 4 US-10-621-693-84 670 98.5 191 4 US-10-658-834A-880 670 98.5 191 4 US-10-658-834A-881 670 98.5 191 4 US-10-658-834A-882 670 98.5 191 4 US-10-658-834A-882 670 98.5 191 4 US-10-658-834A-882 670 98.5 191 4 US-10-658-834A-883 670 98.5 191 4 US-10-658-834A-882 670 98.5 191 4 US-10-658-834A-882	45	44	43	42	41	40	39	38	37	36	35	34	33	32	31	30	29
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	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.5	98.8
	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	191	800
WS-10-775-204-1303 WS-10-153-207-1 US-10-400-377-1 US-10-400-708-1 US-10-621-693-21 US-10-621-693-21 US-10-621-693-82 US-10-621-693-82 US-10-621-693-82 US-10-628-834A-889 US-10-658-834A-881 US-10-658-834A-881 US-10-658-834A-883 US-10-658-834A-883 US-10-658-834A-883 US-10-658-834A-883	4	4.	4.	4.	4.	4.	4	4.	4.	4.	4.	4.	4.	4.	4	4	u
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	884, App	883, App	882, App	•	880, App	e	•	82, Appl	80, Appl	21, Appl	2, Appli	2, Appli	1, Appli	1, Appli	1, Appli	1, Appli	1303, Ap

## ALIGNMENTS

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RESULT 2
US-10-714-067-24
; Sequence 24, Application US/10714067
; Publication No. US20040077054A1
; GENERAL INFORMATION:
; APPLICANT: Weiner, Richard I.
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               ; ORGANISM: Homo sapiens
US-09-819-094-24
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SEQ ID NO 24
LENGTH: 134
TYPE: PRT
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Best Local Similarity
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APPLICANT: Wartial, Joseph A.
APPLICANT: Martial, Joseph A.
APPLICANT: Struman, Ingrid
APPLICANT: Struman, Ingrid
APPLICANT: Taylor, Robert
APPLICANT: Bentzien, Frauke
TITLE OF INVENTION: No. US20030186382Alel Antiangiogenic Peptide Agents and Their
TITLE OF INVENTION: Therapeutic and Diagnostic Use
TITLE REFERENCE: UCSP-018/02US
CURRENT APPLICATION NUMBER: US/09/819,094
CURRENT FILING DATE: 2001-03-27
PRIOR APPLICATION NUMBER: 09/076,675
PRIOR PILING DATE: 1998-05-12
PRIOR FILING DATE: 1998-05-12
PRIOR FILING DATE: 1997-05-12
                                                                                                                                                                                                                                       121 GIQTLMGRLEDGSP 134
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US-10-621-693-18
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US-10-714-067-24
                                                                                                                                                                                                                                                                                                                                                                 APPLICANT: Gentide Biopharmaceuticals, Inc.
APPLICANT: Bussell, Stuart
TITLE OF INVENTION: MSTRODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENC
TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS
FILE REFERENCE: GNT-00101.P.1-US
CURRENT APPLICATION NUMBER: US/10/621,693
CURRENT FILING DATE: 2003-07-16
PRIOR APPLICATION NUMBER: US 60/396,466
PRIOR APPLICATION NUMBER: US 60/396,466
PRIOR PRILING DATE: 2002-07-16
NUMBER OF SEQ ID NOS: 86
SOFTWARE: Patentin version 3.0
SEQ ID NO 18
LENGTH: 188
TYPE: PRT
                                                                                                                                                                                                           Query Match
Best Local Similarity
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Publication No. US20040059093A1
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SEQ ID NO 24
LENGTH: 134
TYPE: PRT
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TITLE OF INVENTION: Novel Antiangiogenic Peptide Agents and Their
TITLE OF INVENTION: Therapeutic and Diagnostic Use
FILE REFERENCE: UCSF-0.18/0.2US
CURRENT APPLICATION NUMBER: US/10/714,067
CURRENT FILING DATE: 2003-11-14
PRIOR APPLICATION NUMBER: US/09/819,094
PRIOR FILING DATE: 2001-03-27
PRIOR PILING DATE: 2001-03-27
PRIOR APPLICATION NUMBER: 09/076,675
PRIOR PILING DATE: 1998-05-12
PRIOR FILING DATE: 1998-05-12
PRIOR FILING DATE: 1998-05-12
                                                                                                                                                                                                                                                                                                   OTHER INFORMATION: synthetic sequence
                                                                                                                                                                                                                                                                                                                           ORGANISM: Artificial FEATURE:
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                                                                                             MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP
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Taylor, Robert
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                                                                                                                                                                                                           Score 675; DB 4;
Pred. No. 1.5e-63;
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US-09-819-094-23
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                                                                                                                                 APPLICANT: Gentide Biopharmaceuticals, Inc.
APPLICANT: Bussell, Stuart
TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENCE
TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS
FILE REFERENCE: GNT-00101.P.1-US
CURRENT APPLICATION NUMBER: US/10/621,693
CURRENT PILING DATE: 2003-07-16
PRIOR APPLICATION NUMBER: US 60/396,466
PRIOR FILING DATE: 2002-07-16
NUMBER: OF SEQ ID NOS: 86
SOUTWARE: Patentin version 3.0
SEQ ID NO 8
LENGTH: 192
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SEQ ID NO 23
LENGTH: 192
TYPB: PRT
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Best Local Similarity 99.3%;
Matches 133; Conservative
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Publication No
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APPLICANT: Martial
APPLICANT: Struman
APPLICANT: Taylor,
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APPLICANT: Struman, Ingrid
APPLICANT: Struman, Ingrid
APPLICANT: Taylor, Robert
APPLICANT: Taylor, Franke
TITLE OF INVENTION: No. US20030186382A1el Antiangiogenic Peptide Agents and Their
TITLE OF INVENTION: Therapeutic and Diagnostic Use
FILE REFERENCE: UCSF-018/02US
CURRENT APPLICATION NUMBER: US/09/819,094
CURRENT FILING DATE: 2001-03-27
FRIOR APPLICATION NUMBER: 09/076,675
PRIOR APPLICATION NUMBER: 09/076,675
PRIOR APPLICATION NUMBER: 09/076,675
PRIOR APPLICATION NUMBER: 60/046,394
PRIOR PILING DATE: 1998-05-12
PRIOR FILING DATE: 1997-05-12
                                                                      TYPE: PRT
ORGANISM: Artificial
FEATURE:
FEATURE:
NAME/KEY: mat_peptide
                                                 OTHER INFORMATION: synthetic sequence
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Pred. No. 1.6e-63;
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US-10-621-693-8
Sequence 86, Application US/10621693
Publication No. US20040059093A1
GENERAL INFORMATION:
APPLICANT: Gentide Biopharmaceuticals, Inc.
APPLICANT: Bussell, Stuart
TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENCE FILE REFERENCE: GNT-00101.P.1-US
CURRENT APPLICANTION INMERER: US/10/621,693
CURRENT FILING DATE: 2003-07-16
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Best Local (
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Best Local Similarity
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CURRENT FILING DATE: 2003-07-16
PRIOR APPLICATION NUMBER: US 60/396,466
PRIOR FILING DATE: 2002-07-16
NUMBER OF SEQ ID NOS: 86
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APPLICANT: Bussell, Stuart
TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN
TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS
FILE REFERENCE: GNT-00101.P.1-US
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       OTHER INFORMATION: synthetic sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              ORGANISM: Artificial
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    TYPE: PRT
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Pred. No. 1.6e-63;
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US-10-714-067-23
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      Query Match
Best Local Similarity
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SOFTWARE: PatentIn version 3.0
SEQ ID NO 86
                                                                                                             Matches
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Best Local Similarity
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Matches 133;
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TITLE OF INVENTION: Novel Antiangiogenic Peptide Agents
TITLE OF INVENTION: Therapeutic and Diagnostic Use
FILE REFERENCE: UCSF-018/02US
CURRENT APPLICATION NUMBER: US/10/714,067
CURRENT FILING DATE: 2003-11-14
PRIOR APPLICATION NUMBER: US/09/819,094
PRIOR PILING DATE: 2001-03-27
PRIOR FILING DATE: 2001-03-27
PRIOR FILING DATE: 2001-03-27
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Weiner, Richard I
APPLICANT: Martial, Joseph
APPLICANT: Struman, Ingrid
APPLICANT: Taylor, Robert
                                                                                                                                                                                                                                                                              PRIOR APPLICATION NUMBER: 60/046,394 PRIOR FILING DATE: 1997-05-12 NUMBER OF SEQ ID NOS: 34
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NAME/KEY: mat_peptide
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NAME/KEY: MISC_FEATURE
LOCATION: (2)...(192)
OTHER INFORMATION: sequence
                                                                                                                                                                                                                           TYPE: PRT
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                                                                                                                                                                                                                                           LENGTH: 192
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61 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
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                                                                                                             Conservative
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l, Joseph A.
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Pred. No. 1.6e-63;
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Pred. No. 1.6e-63;
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Sequence 42, Application US/10621693

Publication No. US20040059093A1

GENERAL INFORMATION:
APPLICANT: Gentide Biopharmaceuticals, Inc.
APPLICANT: Bussell, Stuart

TITLE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENC

TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS

FILE REFERENCE: GNT-00101.P.1-US

CURRENT APPLICATION NUMBER: US/10/621,693

CURRENT APPLICATION NUMBER: US/10/621,693

CURRENT FILING DATE: 2003-07-16

PRIOR APPLICATION NUMBER: US 60/396,466

PRIOR FILING DATE: 2002-07-16

NUMBER OF SEQ ID NOS: 86

SOPTWARE: PATENTIN Version 3.0

SEQ ID NO 42

LENGTH: 193

TYPE: PATENTIN VERSION 3.0

FEATURE:
COMMENT OF SER OF
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US-10-621-693-42
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                                                                                                                                                      APPLICANT: Gentide Biopharmaceuticals, Inc.
APPLICANT: Bussell, Stuart
ITILE OF INVENTION: METHODS TO CONSTRUCT MULTIMERIC DNA AND POLYMERIC PROTEIN SEQUENC
TITLE OF INVENTION: DIRECT FUSIONS OR WITH LINKERS
FILE REFERENCE: GNT-00101.P.1-US
CURRENT FILING DATE: 2003-07-16
PRIOR APPLICATION NUMBER: US/10/621,693
CURRENT FILING DATE: 2003-07-16
PRIOR APPLICATION NUMBER: US 60/396,466
PRIOR FILING DATE: 2002-07-16
NUMBER: OF SEQ ID NOS: 86
SOFTWARE: PatentIn version 3.0
SEQ ID NO 72
LENGTH: 206
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Best Local Similarity 99.3%;
                           OTHER INFORMATION: synthetic sequence
                                                                 ORGANISM: Artificial FEATURE:
                                                                                                                              TYPE: PRT
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Pred. No. 1.6e-63;
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; OTHER INFORMATION: hGH-Syml19-135 fusion protein US-10-908-400A-95
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              Sequence 91, Application US/10908400A
Publication No. US20050203010A1
GENERAL INFORMATION:
APPLICANT: ATGen Co., LTD.
APPLICANT: KIM, Jong-Sun
TITLE OF INVENTION: Novel peptides conferring environmental stress
TITLE OF INVENTION: Eusion proteins including said peptides
TITLE OF INVENTION: Fusion proteins including said peptides
TITLE OF INVENTION: Fusion proteins including said peptides
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SOFTWARE: KopatentIn 1.71
SEQ ID NO 95
LENGTH: 213
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Best Local (
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APPLICANT: KIM, Jong-Sun
TITLE OF INVENTION: Novel peptides conferring environmental stress resistance and
TITLE OF INVENTION: fusion proteins including said peptides
FILE REFERENCE: 59520-03CIP
FULL REFERENCE: 59520-03CIP
CURRENT APPLICATION NUMBER: US/10/908,400A
CURRENT FILING DATE: 2005-05-10
PRIOR APPLICATION NUMBER: US 10/713,851
PRIOR FILING DATE: 2003-11-14
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PRIOR FILING DATE: 2004-05-11
CURRENT APPLICATION NUMBER: US/10/908,400A
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ORGANISM: Artificial Sequence
FEATURE:
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Pred. No. 1.8e-63;
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Pred. No. 1.7e-63;
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PRIOR APPLICATION NUMBER: US 10/713,851
PRIOR FILING DATE: 2003-11-14
PRIOR APPLICATION NUMBER: KR 10-2004-33123
PRIOR FILING DATE: 2004-05-11
PRIOR APPLICATION NUMBER: KR 10-2005-36882
PRIOR FILING DATE: 2005-05-02
NUMBER OF SEQ ID NOS: 105
SOFTWARE: KOPATENTIN 1.71
SEQ ID NO 91
LENGTH: 216
TYPE: PRT
ORGANISM: Artificial Sequence
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    8
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                                                                                                                                                                                                                                                                                                                                                                                               NÚMBER OF SEQ ID NOS: 105
SOFTWARE: Kopatentin 1.71
SEQ ID NO 96
LENGTH: 216
                                                                                                                                                                                                                                    Query Match
                                                                                                                                                                                                                                                                                                                                                                                                                                                                             APPLICANT: ATGen Co., LTD.

APPLICANT: KIM, Jong-Sun

ITITLE OF INVENTION: Novel peptides conferring environmental stress resistance

ITITLE OF INVENTION: fusion proteins including said peptides

ITITLE OF INVENTION: fusion proteins including said peptides

ITITLE OF INVENTION: fusion proteins including said peptides

ITITLE OF INVENTION: 0005-05-01

CURRENT FILING DATE: 2005-05-10

PRIOR APPLICATION NUMBER: US 10/713,851

PRIOR PILING DATE: 2003-11-14

PRIOR APPLICATION NUMBER: KR 10-2004-33123

PRIOR APPLICATION NUMBER: KR 10-2004-3323

PRIOR APPLICATION NUMBER: KR 10-2005-36882

PRIOR APPLICATION NUMBER: KR 10-2005-36882

PRIOR APPLICATION NUMBER: KR 10-2005-36882

PRIOR APPLICATION NUMBER: KR 10-2005-36882
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Best Local Similarity
                                                                                                                                                                                                                                                                                OTHER INFORMATION: hGH-SynE123A fusion protein -10-908-400A-96
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     CURRENT FILING DATE:
                                                                                                                                                                                                                                                                                                                            TYPE: PRT ORGANISM: Artificial Sequence FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     FEATURE:
OTHER INFORMATION: Synthetic Construct for hGH-Syn119-140 fusion protein
                                                                                                                                                                                Match 99.3%;
Local Similarity 99.3%;
the 133; Conservative
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TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE
                        TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
                                                                                                                             MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP 60
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                                                                                          MFPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLCFSESIP
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                                                                                                                                                                                Score 675; DB 5; Length 216; Pred. No. 1.9e-63; O; Mismatches 1; Indels
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Pred. No. 1.9e-63;
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APPLICANT: KIM, Jong-Sun
APPLICANT: KIM, Jong-Sun
TITLE OF INVENTION: Novel peptides conferring environmental stress resistance and
TITLE OF INVENTION: fusion proteins including said peptides
FILE REFERENCE: 59520-03CIP
CURRENT APPLICATION NUMBER: US/10/908,400A
CURRENT FILLING DATE: 2005-05-10
PRIOR APPLICATION NUMBER: US 10/713,851
PRIOR FILING DATE: 2003-11-14
PRIOR APPLICATION NUMBER: KR 10-2004-33123
PRIOR RILING DATE: 2004-05-11
PRIOR APPLICATION NUMBER: KR 10-2004-33123
PRIOR FILING DATE: 2004-05-12
PRIOR FILING DATE: 2004-05-13
PRIOR FILING DATE: 2005-05-02
NUMBER OF SEQ ID NOS: 105
SOFTWARE: KOPAtentin 1.71
SEQ ID NO 98
LENGTH: 216
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APPLICANT: KIM, Jong-Sun

TITLE OF INVENTION: Novel peptides conferring environmental stress resistance and

TITLE OF INVENTION: fusion proteins including said peptides

TUTLE OF INVENTION: fusion proteins including said peptides

TITLE OF INVENTION: 
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US-10-908-400A-97
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      맑
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   Sequence 98, Application US/10908400A Publication No. US20050203010A1
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   GENERAL INFORMATION:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        Matches
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                   TYPE: PRT
ORGANISM: Artificial Sequence
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Pred. No. 1.9e-63;
0; Mismatches 1
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TYPE: PRT
CRCANUESM: Artificial Sequence
FEATURE:
COTHER INFORMATION: hGH-Synal24E fusion protein
US-10-908-400A-98

Query Match
Best Local Similarity 99.3%; Pred. No. 1.9e-63;
Matches 133; Conservative 0; Mismatches 1; Indels 0; Gaps 0;
Matches 133; Conservative 0; Mismatches 1; Indels 0; Gaps 0;

Oy

IMPPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPXEQXYSFLQNPQTSLSFSESIP 60
IMPPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPXEQXYSFLQNPQTSLCFSESIP 60
IMPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPXEQXYSFLQNPQTSLCFSESIP 60
IMPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPXEQXXSFLQNPQTSLCFSESIP 60
IMPT
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Result
No.
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Maximum Match 100%
Listing first 45 summaries
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Maximum DB
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 sequence:
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Published Applications AA New:*

1: /SIDSS/ptodata/1/pubpaa/USO8 NEW PUB.pep1:*

2: /SIDSS/ptodata/1/pubpaa/USO6 NEW PUB.pep:*

3: /SIDSS/ptodata/1/pubpaa/USO7 NEW PUB.pep:*

4: /SIDSS/ptodata/1/pubpaa/USO8 NEW PUB.pep:*

5: /SIDSS/ptodata/1/pubpaa/USO8 NEW PUB.pep:*

6: /SIDSS/ptodata/1/pubpaa/USO9 NEW PUB.pep:*

7: /SIDSS/ptodata/1/pubpaa/USO9 NEW PUB.pep1:*

8: /SIDSS/ptodata/1/pubpaa/USO NEW PUB.pep1:*

9: /SIDSS/ptodata/1/pubpaa/USIO NEW PUB.pep1:*

10: /SIDSS/ptodata/1/pubpaa/USIO NEW PUB.pep1:*

11: /SIDSS/ptodata/1/pubpaa/USIO NEW PUB.pep1:*

12: /SIDSS/ptodata/1/pubpaa/USIO NEW PUB.pep1:*
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             Query
Match
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(without alignments)
224.684 Million cell updates/sec
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Copyright (c) 1993 - 2006 Biocceleration Ltd
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       DB
                   US-10-519-390-6
US-11-267-871-162
US-11-267-871-163
US-11-267-871-163
US-11-267-871-164
US-11-267-871-166
US-11-267-871-166
US-11-267-871-166
US-11-267-871-169
US-11-267-871-172
US-11-267-871-173
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US-11-267-871-173
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US-11-033-365-198
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Sequence 159, App Sequence 190, App Sequence 200, App Sequence 6, Appli Sequence 1, Appli Sequence 16, Appli Sequence 16, App Sequence 164, App Sequence 166, App Sequence 166, App Sequence 167, App Sequence 169, App Sequence 170, App Sequence 171, App Sequence 171, App Sequence 171, App Sequence 173, App Sequence 174, App Sequence 175, App Sequence 176, App Sequence 1776, App Sequence 1776, App Sequence 1776, App
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-11-267-871-20	US-11-267-871-199	-11-267-871-	-11-267-871-1	-11-267-871-1	-11-267-871-1	US-11-267-871-194	-11-267-871-1	-11-267-871-	-11-267-871-1	-11-267-871-	1		-11-267-871-	-11-267-871-	US-11-267-871-185	-11-267-871-	US-11-267-871-183	-11-267-871-	-11-267-	US-11-267-871-180	US-11-267-871-179	-11-267-	US-11-267-871-177
	e 199,	198,	197,	e 196,	195,	194,	193,	192,	191,	190,	189,	188,	187,	186,	-	184,	183,	182,	181,	180,	179,	178,	

ALIGNMENTS

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APPLICANT: Noese Technologies Inc.
APPLICANT: DeFrees, Shawn
APPLICANT: Zopf, David
APPLICANT: Zopf, David
APPLICANT: Wang, ZhiGuang
APPLICANT: Clausen, Henrik
TITLE OF INVENTION: O-Linked Glycosylation of
FILE REFERENCE: 040053-01-5138
CURRENT APPLICATION NUMBER: US/11/033,365
CURRENT FILING DATE: 2005-01-10
PRIOR APPLICATION NUMBER: 60/535,284
PRIOR FILING DATE: 2004-01-08
PRIOR APPLICATION NUMBER: 60/544,411
PRIOR FILING DATE: 2004-02-12
PRIOR APPLICATION NUMBER: 60/546,631
PRIOR APPLICATION NUMBER: 60/570,891
PRIOR APPLICATION NUMBER: 60/570,891
PRIOR FILING DATE: 2004-05-12
PRIOR FILING DATE: 2004-05-12
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                                                                                                                                                                                                                                                                           ; TYPE: PRT
; ORGANISM: Homo sapiens
US-11-033-365-159
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US-11-033-365-159
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                                                                                                                                                                                 Query Match 99.3%;
Best Local Similarity 99.3%;
Matches 133; Conservative
                                                                                                                                                                                                                                                                                                                                               NUMBER OF SEQ ID NOS: 213
SOFTWARE: PatentIn version
SEQ ID NO 159
LENGTH: 192
1 MFPTIPLSRLEDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 Application US/11033365 o. US20050250678A1
                                                                                                                                                                              Score 675; DB 11;
Pred. No. 2.8e-63;
0; Mismatches 1
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121 GIQTLMGRLEDGSP 134

GIQTLMGRLEDGSP 134

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; Sequence 198, Application US/11033365; Publication No. US20059250678A1; GENERAL INFORMATION:
; APPLICANT: Neose Technologies Inc.
APPLICANT: DeFrees, Shawn; APPLICANT: Zopf, David
; APPLICANT: Wang, ZhiGuang
; APPLICANT: Clausen, Henrik
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US-11-033-365-198
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CURRENT APPLICATION NUMBER: US/11/033,365
CURRENT FILING DATE: 2005-01-10
PRIOR APPLICATION NUMBER: 60/535,284
PRIOR FILING DATE: 2004-01-08
PRIOR APPLICATION NUMBER: 60/544,411
PRIOR FILING DATE: 2004-02-12
PRIOR FILING DATE: 2004-02-12
PRIOR FILING DATE: 2004-02-20
PRIOR FILING DATE: 2004-02-20
PRIOR APPLICATION NUMBER: 60/546,631
PRIOR FILING DATE: 2004-02-20
PRIOR APPLICATION NUMBER: 60/555,813
PRIOR FILING DATE: 2004-03-23
PRIOR PRILING DATE: 2004-03-23
PRIOR APPLICATION NUMBER: 60/570,891
PRIOR FILING DATE: 2004-03-23
PRIOR FILING DATE: 2004-03-23
PRIOR FILING DATE: 2004-03-21
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Best Local Similarity
APPLICANT: Clausen, Henrik
TITLE OF INVENTION: O-Linked Glycosylation of peptides
FILE REFERENCE: 040853-01-5138
CURRENT APPLICATION NUMBER: US/11/033,365
CURRENT FILING DATE: 2005-01-10
PRIOR APPLICATION NUMBER: 60/535,284
PRIOR APPLICATION NUMBER: 60/535,284
PRIOR FILING DATE: 2004-01-08
PRIOR PRIOR DATE: 2004-01-08
PRIOR FILING DATE: 2004-02-12
PRIOR FILING DATE: 2004-02-12
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TITLE OF INVENTION: O-Linked Glycosylation of peptides
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  LENGTH: 192
TYPE: PRT
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Wang, ZhiGuang
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o. US20050250678A1
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DS20050250678A1
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Pred. No. 2.8e-63;
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PRIOR APPLICATION NUMBER: 60/555,813
PRIOR FILING DATE: 2004-03-23
PRIOR PELLANGION NUMBER: 60/570,891
PRIOR PILLING DATE: 2004-05-12
NUMBER OF SEQ ID NOS: 213
SOFTWARE: Patentin version 3.2
SEQ ID NO 200
LENGTH: 192
                                                                                                                                                                                                                        ; TYPE: PRT; ORGANISM: Homo sapiens US-11-033-365-200
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CURRENT FILING DATE: 2005-01-10
PRIOR APPLICATION NUMBER: 60/535,284
PRIOR FILING DATE: 2004-01-08
PRIOR APPLICATION NUMBER: 60/544,411
PRIOR FILING DATE: 2004-02-12
PRIOR FILING DATE: 2004-02-20
PRIOR APPLICATION NUMBER: 60/546,631
PRIOR APPLICATION NUMBER: 60/546,631
PRIOR FILING DATE: 2004-02-20
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                                                                                                                                                                    Query Match
Best Local Similarity
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Best Local Similarity
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PRIOR APPLICATION NUMBER: 60/555,813
PRIOR FILING DATE: 2004-03-23
PRIOR APPLICATION NUMBER: 60/570,891
PRIOR FILING DATE: 2004-05-12
NUMBER OF SEQ ID NOS: 213
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           APPLICANT: Clausen, Henrik
TITLE OF INVENTION: O-Linked Glycosylation of peptides
FILE REFERENCE: 040853-01-5138
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APPLICANT: DeFrees, Shawn
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                                                                                                                                                 133;
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61 TPSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEE 120
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                                                                                               1 MPPTIPLSRLFDNAMLRAHRLHQLAFDTYQEFEEAYIPKEQKYSFLQNPQTSLSFSESIP 60
                                                                        MPPTIPLSRLPDNAMLRAHRLHQLAFDTYQEFEBAYIPKBQKYSFLQNPQTSLCFSB8IP
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Wang, ZhiGuang
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Pred. No. 2.8e-63;
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Pred. No. 2.8e-63;
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121 GIQTLMGRLEDGSP 134

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APPLICANT: Borrelly, Gilles
APPLICANT: Borrelly, Gilles
APPLICANT: Borrelly, Gilles
APPLICANT: Drittanti, Lila
APPLICANT: Vega, Manuel
FILLE OF INVENTION: MODIFIED GROWTH HORMONES
FILE REFERENCE: 17109-015001/925
CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 7.9
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 1
LENGTH: 191
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Publication No. US20060094655A1
GENERAL INFORMATION:
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LENGTH: 191
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Best Local Similarity
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CURRENT FILING DATE: 2004-12-23
PRIOR APPLICATION NUMBER: KR10-2003-0051846
PRIOR FILING DATE: 2003-07-26
NUMBER OF SEQ ID NOS: 65
SOFTWARE: KopatentIn 1.71
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               APPLICANT: MEDEXGEN Inc.
APPLICANT: CHUNG, Yong-1
APPLICANT: LEE, Hak-sup
APPLICANT: YI, Ki-Wan
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              TITLE OF INVENTION: A method of improving efficacy of biological response-modifying TITLE OF INVENTION: proteins and the example muteins FILE REFERENCE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     APPLICANT: KIM, APPLICANT: HEO,
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        OTHER INFORMATION: GH: 1st, 10th, 2
OTHER INFORMATION: 166th, 176th or
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FEATURE:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     TYPE: PRT
ORGANISM: Artificial Sequence
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YI, Ki-Wan
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HEO, Youn-Hwa
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Pred. No. 9.3e-63;
0; Mismatches 1
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APPLICANT: GUYON, Thierry
APPLICANT: Borrelly, Gilles
APPLICANT: Borrelly, Gilles
APPLICANT: Drittanti, Lila
APPLICANT: Vega, Manuel
ITILE OF INVENTION: MODIFIED GROWTH HORMONES
FILE REFERENCE: 17109-015001/925
CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 719
SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 162
LENGTH: 191
TYPE: PRT
ORGANISM: Homo Sapiens
RESULT 8
US-11-267-871-163
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Best Local Similarity
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Best Local Similarity
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                                                                                                                                                                                                                                                                                     132; Conservative
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                                                                         IQTLMGRLEDGSP 133
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Pred. No. 9.3e-63;
0; Mismatches 1;
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                                                                                                                                                                                                                                                                                       Score 670; DB 10;
Pred. No. 9.3e-63;
0; Mismatches 1
                                                                                                                                                                                                                                                                                                                          Length 191;
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Sequence 163, Application US/11267871 Publication No. US20060094655A1 GENERAL INFORMATION:

APPLICANT: Guyon, Thierry APPLICANT: Borrelly, Gilles APPLICANT: Drittanti, Lila

TITLE OF INVENTION: MODIFIED GROWTH HORMONES

Manuel

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TITLE OF INVENTION: MODIFIED GROWTH HORMONES
FILE REFERENCE: 17109-015001/925
CURRENT APPLICATION UNMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION UNMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION UNMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
VUMBER: OF SEQ ID NOS: 719
SOFTWARE: FASESEQ for Windows Version 4.0
SEQ ID NO 164
LENGTH: 191
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US-11-267-871-164
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CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 719
SOFTWARE: PASISEQ for Windows Version 4.0
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LENGTH: 191
TYPE: PRT
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Best Local Similarity 99.2%;
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APPLICANT: Borrelly, Gilles
APPLICANT: Drittanti, Lila
APPLICANT: Vega, Manuel
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                                                                                                                                                                                                                                                                                                          TYPE: PRT
ORGANISM: Homo Sapiens
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IQTLMGRLEDGSP 134
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Pred. No. 9.3e-63;
0; Mismatches 1;
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                                                                                                                                                                                                                               Score 670; DB 10;
Pred. No. 9.3e-63;
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CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 719
SOFTMARE: FastSEQ for Windows Version 4.0
SEQ ID NO 165
LENGTH: 191
TYPE: PRT
ORGANISM: Homo Sapiens
US-11-267-871-165
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                                                                                US-11-267-871-166
                                                                                                                                                                       FILE REFERENCE: 17109-015001/925
CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 719
SOFTWARE: FastSEQ for Windows Version 4.0
                                                                                                                   SEQ ID NO 166
LENGTH: 191
TYPE: PRT
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Query Match
Best Local Similarity
Matches 132; Conserv
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APPLICANT: Borrelly, Gilles
APPLICANT: Drittanti, Lila
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                                                                                                                                                                                                                                                                                                                                                       TITLE OF INVENTION: MODIFIED GROWTH HORMONES
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                                                                                                 ORGANISM: Homo Sapiens
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Drittanti, Lila
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o. US20060094655A1
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                      98.5%;
99.2%;
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Pred. No. 9.3e-63;
0; Mismatches 1
Score 670; DB 10;
Pred. No. 9.3e-63;
0; Mismatches 1;
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                                        Length 191;
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APPLICANT: Guyon, Thierry
APPLICANT: Borrelly, Gilles
APPLICANT: Drittanti, Lila
APPLICANT: Vega, Manuel
TITLE OF INVENTION: MODIFIED GROWTH HORMONES
FILE REFERENCE: 17109-015001/925
CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
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US-11-267-871-168
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US-11-267-871-167
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Best Local Similarity
Matches 132; Conserv
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                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 719
SOFTWARE: FastSEQ for Windows Version
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       APPLICANT: Borrelly, Gilles
APPLICANT: Drittanti, Lila
APPLICANT: Vega, Manuel
TITLE OF INVENTION: MODIFIED GROWTH HORMONES
FILE REFERENCE: 17109-015001/925
CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
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ORGANISM: Homo Sapiens
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      LENGTH: 191
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Pred. No. 9.3e-63;
0; Mismatches 1;
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; ORGANISM: Homo Sapiens
US-11-267-871-168
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; ORGANISM: Homo Sapiens
US-11-267-871-169
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LENGTH: 191
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SOFTWARE: FastSEQ for Windows Version 4.0
SEQ ID NO 168
LENGTH: 191
                                                                                                                                                                                          Matches
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Best Local Similarity
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Best Local Similarity
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CURRENT APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-11-03
PRIOR APPLICATION NUMBER: 60/706,697
PRIOR FILING DATE: 2005-08-08
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR APPLICATION NUMBER: 60/625,652
PRIOR FILING DATE: 2004-11-04
                                                                                                                                                                                                                                                                                                                                                    PRIOR FILING DATE: 2004-11-04
NUMBER OF SEQ ID NOS: 719
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TITLE OF INVENTION: MODIFIED GROWTH HORMONES
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APPLICANT: Borre
121
                122 IQTLMGRLEDGSP 134
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                                                            PSNREETQQKSNLELLRISLLLIQSWLEPVQFLRSVFANSLVYGASDSNVYDLLKDLEEG
IQTLMGRLEDGSP 133
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Drittanti, Lila
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Pred. No. 9.3e-63;
0; Mismatches 1;
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Pred. No. 9.3e-63;
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RESULT 15 US-11-267-871-170

Sequence 170, Application US/11267871 Publication No. US20060094655A1 GENERAL INFORMATION:

APPLICANT: Guyon,

Thierry

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APPLICANT: Borrelly, Gilles

* APPLICANT: Uga, Manuel
APPLICANT: Uga, Manuel
TITIE OF INVENTION MODIFIED GROWTH HORMONES
FILE REFREENCE: 17109-015001/925
FILE REFREENCE: 17109-015001/925
FILE REFREENCE: 17109-015001/925
PRIOR APPLICATION NUMBER: US/11/267,871
CURRENT FILING DATE: 2005-01-03
PRIOR APPLICATION NUMBER: 60/625,652
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